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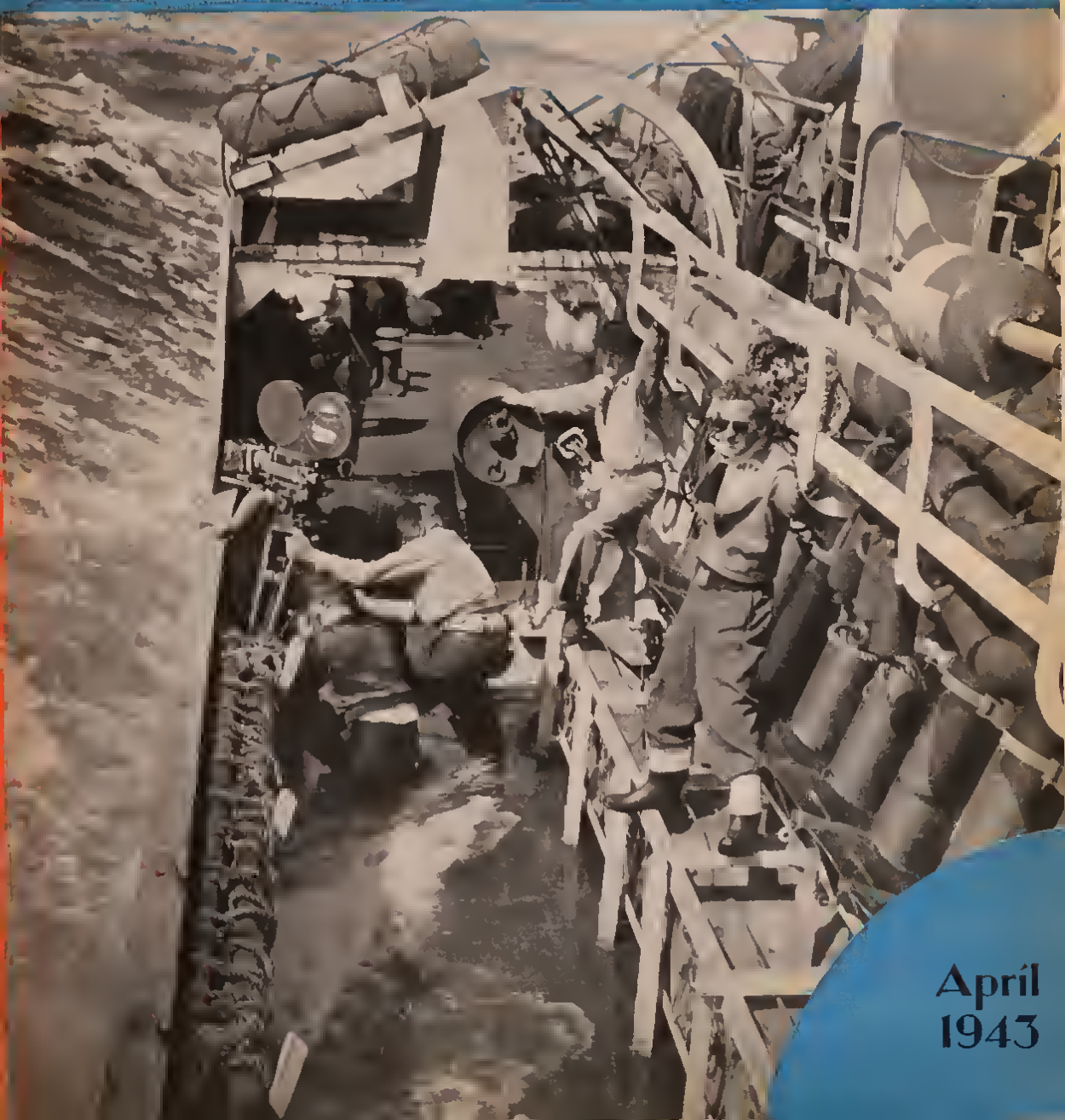

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THE MOTION PICTURE CAMERA MAGAZINE

VOL. 24 APRIL, 1943 NO. 4

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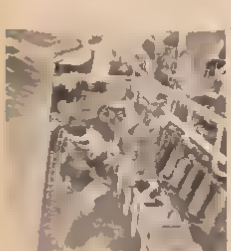

The Front Cover

Lo[illegible]ments cover shows Barry Perry A S C center with Bob Lee and director Dick Rosson tracking aboard a Canadian convoy somewhere in the Atlantic, filming a scene for Universal's Corvettes In Action. The inanimate objects upon which Perry and Rosson are standing, so nonchalantly are Bob Lee's hands. Note how camera is chained down, and the [illegible] horizon as the corvette rocks. The still is by an unidentified Royal Canadian Navy cameraman.

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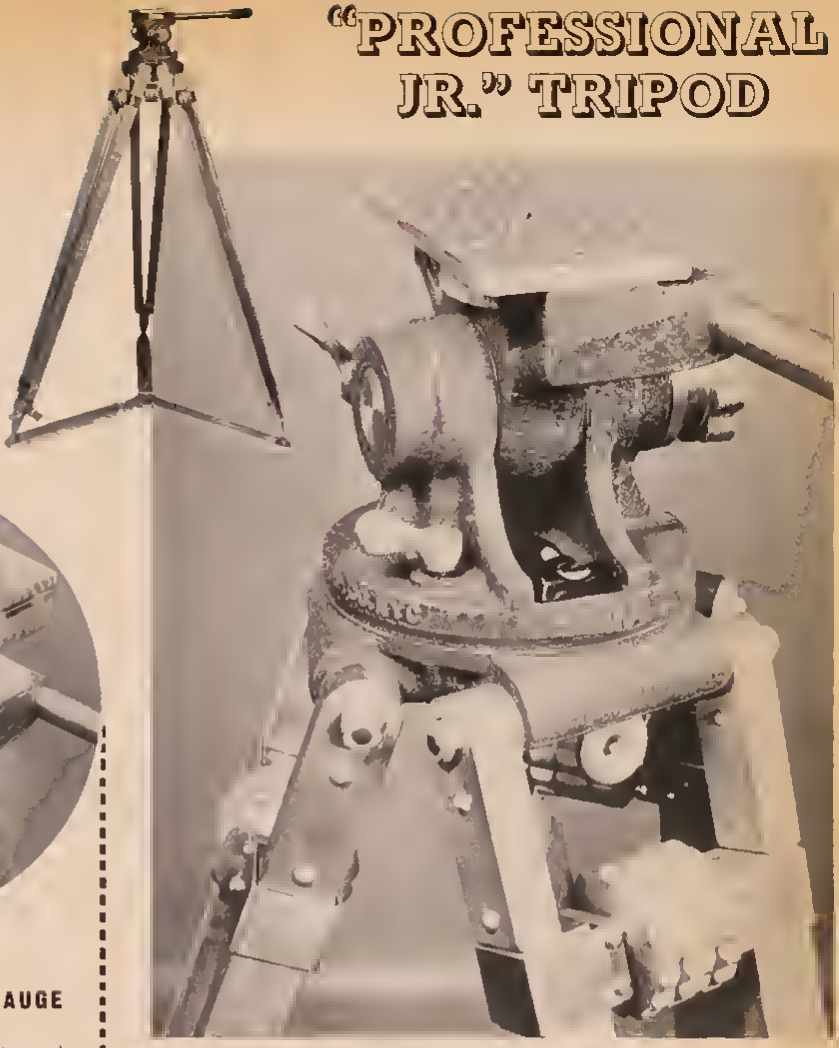

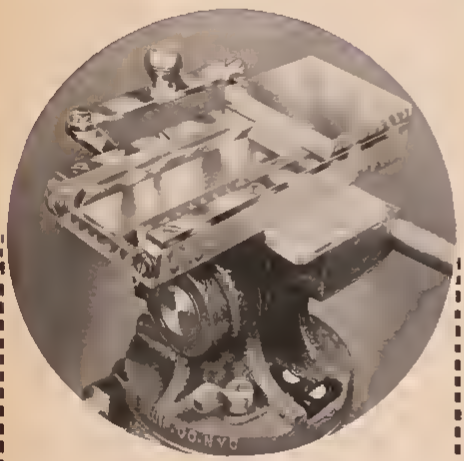

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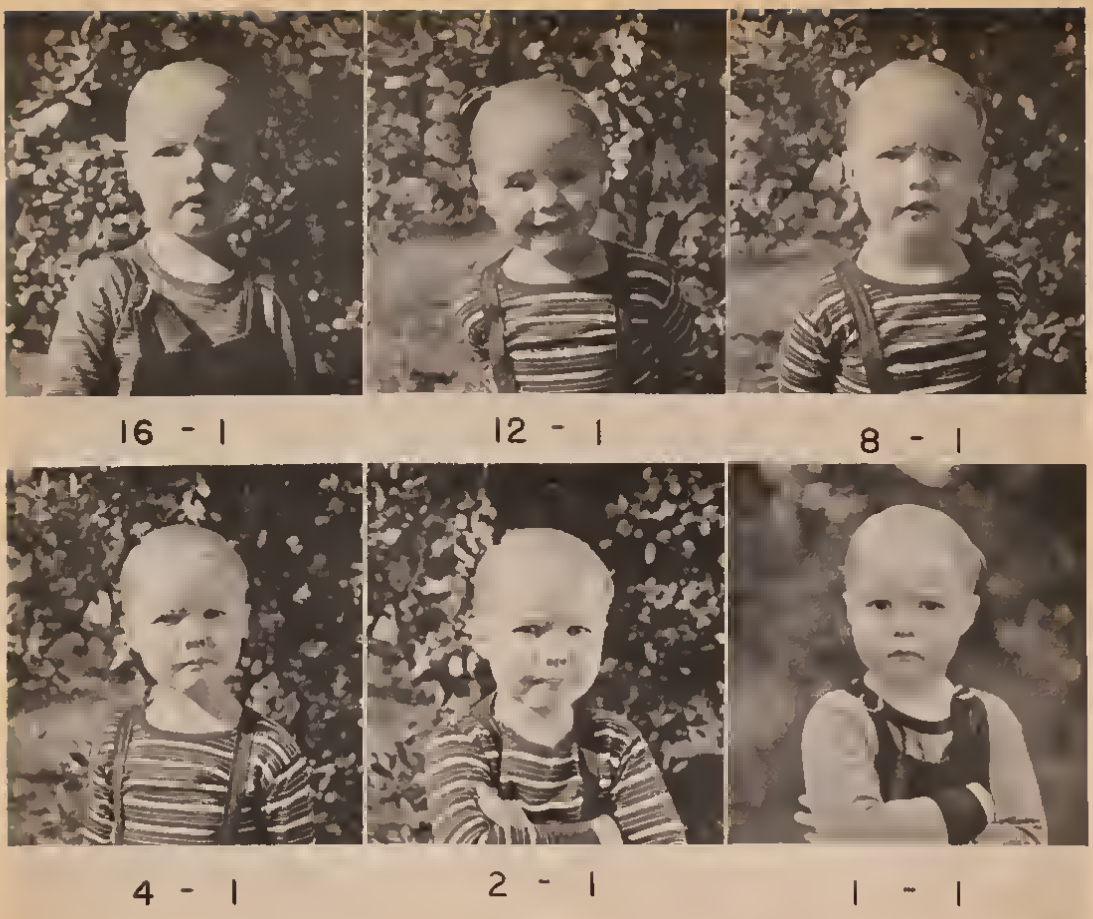


Illumination Contrast Control

By CAPT. DON NORWOOD, U.S.A. (Ret'd)

SUPPOSE that you were assigned to a picture which called for dramatic, high-contrast lighting throughout. Can you be absolutely sure that your first scenes made will match up with those made six weeks later?

Suppose that you are shooting a star, and discover an arrangement of lights and shadows on her face that gives a superb effect. Would you like to be able to duplicate the effect, with assurance, six weeks later, any number of times?

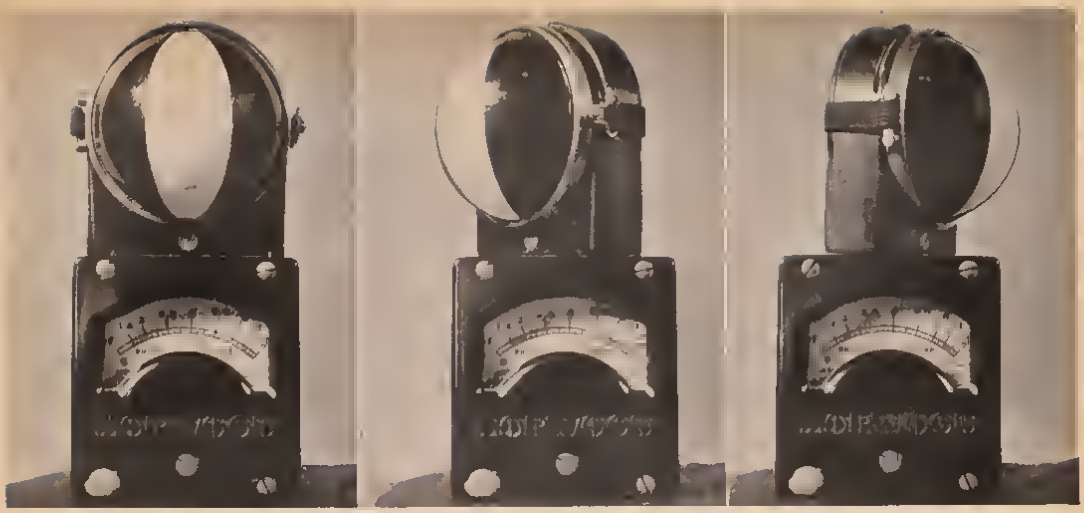
Suppose that you are going to shoot a natural-color picture. Would you like to be able to proceed with assurance that contrast will always be within safe limits, no blocked up shadows, no washed-out highlights? That contrasts throughout the picture will match perfectly?

All of the above are, to a large extent, functions of *illumination contrast*.

Illumination contrast is easy to define. Let us imagine a subject outdoors facing south. The sun is in the west. The west side of the subject's face is illuminated by sunlight. The east side is illuminated by sky light. The ratio of the intensity of the sunlight, on one side, to the intensity of the sky-light, on the other side, constitutes the illumination contrast.

Heretofore illumination contrast has been somewhat loosely considered as low contrast, high contrast, or in between. Such a method leaves much to be desired in the way of positive information. What one photographer considers low contrast might fit another photographer's idea of medium contrast, and so on. Even one individual's ideas on the subject might be subject to variations from time to time.

It is therefore obvious that it would be quite desirable to be able to label these various illumination contrasts with numbers which would definitely place them. Such procedure would provide a common language on the subject which would have a definite meaning to all photographers.



For example, see Fig. 1-a (first picture). Here the sunlight intensity on one side is 16 times the intensity of the skylight on the other side. This gives us an illumination contrast ratio of 16 to 1. Fig. 1-b (second picture), shows an illumination contrast of 12 to 1; and so on through the series.

It would not be a difficult matter for a cinematographer to select from such a series an illumination contrast ratio that would be exactly suitable for the next picture he is going to shoot.

With illumination contrast ratios reduced to easily handled numerical values, the next step is to provide a means of measuring the actual illumination contrasts prevailing, or being established, on any subject.

This has been accomplished by means of an auxiliary attachment for the Norwood exposure-meter.

It will be recalled that the Norwood exposure meter has a three-dimensional light-collector, which in effect represents the camera side of the subject, and evaluates the sum total of all photographically effective illumination falling on the subject. The auxiliary attachment is in

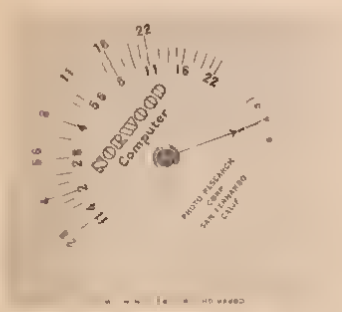


Fig. 5. Contrast computer. Contrast ratio is indicated at arrow (right), and juxtaposed figures on dial indicate correct readings on highlight (outer) and shadow (inner) illumination to maintain that ratio at any desired illumination level.

Left: Fig. 2, contrast reading hood on Norwood meter. Center and right, Figs. 3 and 4, showing method of taking selective readings of highlight and contrast illumination.

the form of a hood with a lune shaped aperture. (See Fig. 2.) This hood, in effect, permits selective measurement of any sector of the representative surface of the light collector. The reading so obtained indicates the relative intensity of illumination falling on that particular sector.

Now if a reading is taken on the sunlit side as shown in Fig. 3, the meter needle might, for example, show *f*:5.6. Then a reading would be taken on the skylit side as shown in Fig. 4. This reading turns out to be *f*:2.8. The ratio between the two illumination-intensity readings constitutes the illumination contrast.

As an aid in reducing the meter readings to a simple numerical ratio, the Norwood computer has been designed. (See Fig. 5.) To carry through the example started above, the higher reading, *f*:5.6, has been located on the upper outside scale. The lower reading, *f*:2.8, has been located on the upper *inside* scale, and set adjacent to the higher reading. The index, at the right, below, then points to the answer on its lower scale, which in this case happens to be 4 to 1.

Suppose that a cinematographer assigned to a new picture looks over the story and decides that a contrast ratio, for example, of 4 to 1 will best promote the effect of the story.

On any given scene then he may use the device as an aid to lighting, as follows. The Norwood computer is first set to 4:1. The Norwood meter with contrast hood is used to measure the brightest illumination. Suppose that shows up as *f*:4. The meter head is then turned so that a reading will be made on the shallow side. The computer shows that the shadow must be filled in until the meter needle shows *f*:2. When this point is reached *the all-around illumination on the subject is 4:1.*

Thus throughout an entire picture the illumination contrast may be always kept under positive control. The cinematographer has assurance that scenes made the last day of shooting will perfectly match those made on the first day.

When making contrast readings the hood aperture is moved a 180° angle on the camera side of the subject. This is because the photographer is interested only in illumination falling on the camera side of the subject.

However, when it is desired to make a record of some particularly attractive lighting set-up, for purpose of duplication at a later date, the Norwood meter with contrast hood may be used in a different manner. For this purpose it is de-

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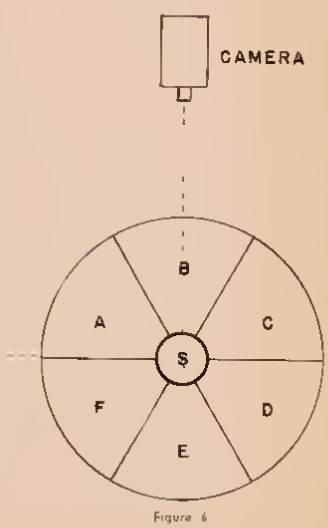


Figure 6

Consistency In Cinematography

By DANIEL B. CLARK, A.S.C.
Executive Supervisor of Photography
20th Century-Fox Studio

The author receives Academy Award plaque for developing the photoelectric lens-calibrating system described here

CONSISTENCY is, and must always be, one of the fundamental goals of professional cinematography. By this I do not in any way mean a standardization of artistic treatment which would rigidly standardize the lightings and compositions of every cinematographer on every picture to a monotonous sameness. What I refer to is that phototechnical consistency which so completely standardizes the factors of illumination, exposure and film processing that the director of photography can concentrate all of his attention on the artistic aspects of his work, confident that the mechanical details represented by negative densities and printing values will take care of themselves to the extent that the first scene and the last one (and all those in between) will "match up," regardless of whether ten days or ten months of shooting intervene between their making.

In attaining this photomechanical consistency, three very closely inter-related factors are chiefly involved. First, the key illumination on the subject being photographed should be consistent. Second, the exposure-values reaching the film from this combination of illumination and subject must also be consistent. Finally, the laboratory processing of both the negative film and the print therefrom should be equally consistent.

And consistency in any one of these factors is virtually useless—not to say impractical—unless the other two are also consistent.

Perhaps the first, and in many ways the most important of these three factors is consistency in film processing. Clearly, it does not matter very much that exposure and illumination be held constant if the development given the negative is not consistent.

In the pioneer days of the industry, this consistency was not only unknown, but virtually impossible. Too little was known about the depletion of solutions, and the deterioration of chemicals. In addition, since negative development was timed largely by visual means, the human element was introduced to produce another extremely unpredictable variable.

Today, modern advances in practical as well as theoretical photochemistry have enabled us to mix our solutions with infinitely greater consistency, and modern replenishment techniques make it possible to maintain them at consistent performance throughout their useful lives. Modern sensitometric control furnishes a constant, accurate check on performance that was unknown only a few years ago.

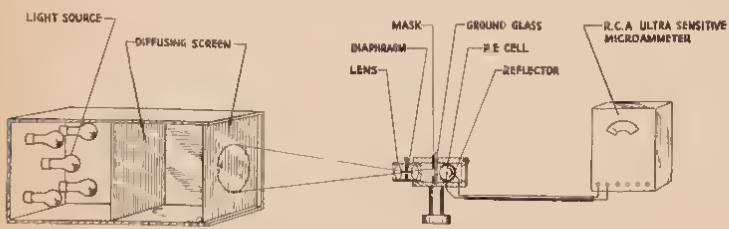
The human element still remains, however, and in laboratories where the so-called "test system" prevails, can still defeat every effort, whether by cameraman or laboratory technician, toward consistency. Under this system at every important change of scene, set-up or lighting, a test is made. On reaching the laboratory, these tests are detached from the rest of the film and developed first, under "normal" conditions, and used as a guide to the development of the actual scenes. If in the opinion of the negative-timer, the test of a scene seems thin and underexposed, the negative of the scene itself is given additional development, if the test seems overly dense, the actual scene is short-developed.

It does not matter whether or not the cinematographer may have been working deliberately for low- or high-key effects: the negative is given the development the timer believes ought to be "right" for what he reads from the test. As he is not a mind-reader, he can scarcely be blamed if he fails to appreciate that the director of photography may have had a definite reason for over- or under-lighting the scene to gain a given effect . . . but the system can be blamed, and should be.

If the director of photography were so inexpert, or had so little control of his medium that he could not avoid scene-to-scene fluctuations in his lighting, exposure and negative densities, it must be admitted that the additional check represented by this test system might be an invaluable life-saver. But today any cinematographer worthy of the name is certainly sufficiently master of his medium, and has at his hand such efficient controls of lighting and exposure, that there is no excuse for the intrusion of this infinitely variable human element.

Moreover, the effects of this error are cumulative. Leaving aside the experiences every cinematographer has had in which scenes lit and exposed for night-effects or effect-lightings were misinterpreted by someone in the laboratory and force-developed into indifferent day-effects, most of us can recall times when we were shooting for a definite effect and the laboratory's negative-timer misinterpreted it. If, on the one hand, the cinematographer attempted to handle his scene according to the laboratory's recommendation, it would mean wholly abandoning effects he felt were artistically and dramatically needful to his production. On the other hand, if he strove to obtain the effects he wanted in spite of the laboratory, it would mean he would be getting farther and farther off the beam every day. In either case, his attempts to obtain phototechnical consistency would degenerate into a mere attempt to outguess the laboratory, usually to the detriment of overall photographic quality and consistency.

The answer to this lies in giving the cinematographer a definite standard of negative processing at which to shoot, as represented by the time-and-temperature system of development. This leaves the question of contrast, negative density and effects completely in the control of the cameraman. If he misses, it is his own fault; if he succeeds, it is by his own merit. In any event, the man at the camera stands or falls on his own ability, and one of the basic factors leading to phototechnical consistency has been reduced to scientifically standard practice.



Schematic diagram of the 20th Century Fox photo electric lens calibrating set up

I think it is very greatly to the credit of Laboratory Superintendent Mike Leshing of the 20th Century-Fox Laboratory that he has standardized on this time-and-temperature system Not only is he one of the very few laboratory chiefs who leaves control of photography strictly in the hands of the cameraman, but by eliminating tests and all that go with them, he has achieved savings in film, time, effort and manpower which are increasingly important these days

This consistency in negative processing is not alone enough to guarantee photographic consistency, however. It would in itself be futile if it could not be accompanied by consistency in illumination on the set and consistency in exposure on the film It would only stabilize one out of three potentially variable factors.

With today's photoelectric exposure-meters, obtaining consistency in illumination has become a relatively simple matter. It probably does not matter too much what type of meter is used, or by what method, so long as the meters themselves are consistently accurate, and the method of using them is such as to give consistent results. At 20th Century-Fox we pioneered in the use of meters and in establishing standards of accuracy for the meters, and standard methods of using them, and we naturally like to feel that our method is best At any rate, it has proved to produce uniformly excellent results, and has won the approval of all of the many outstanding cinematographers on the studio's camera staff.

By means of exhaustive comparative tests, we selected what appeared to us to be the most consistently accurate of the various types of photoelectric exposure-meters then available

We then standardized on this meter, and supplied studio-owned meters to all of our cameramen These meters are regularly checked against a known standard of illumination on an optical bench, and maintained in uniformly accurate working order

In use, the meters are used in a simple, standard method for incident-light readings on the key light This key-light illumination is adjusted to produce a predetermined standard reading for normal and effect-lightings With the key-light pegged to a normal standard, the cinematographers can balance the rest of their lighting as they see fit, securely confident that then illumination is balanced to a standard which, with our standard time-and-temperature developing, should place their exposure and negative density in the desirable middle part of the film's characteristic curve and of the printing scale

This, however, is still not enough to guarantee complete consistency under all conditions All professional cinematographers—and most advanced amateurs—have learned from sad experience that exposure is governed not only by illumination and negative development, but by the individual light-transmitting abilities of the lenses used to make the picture. While in theory any given stop on one lens is supposed to transmit as much light as the same stop on any other lens, in practice, this is not so

This is because the mathematical formula conventionally used in calibrating the diaphragm openings of photographic lenses does not take into consideration the type of glass used in constructing the lens, the number of elements, their respective transmission factors, or the number of glass-air surfaces in the lens as a whole This formula is mathematically expressed as.

$$f - \frac{F}{D}$$

In this, "f" represents the numerical value of the *f*-stop in question, while "F" represents the focal length of the lens, and "D" the diameter of the aperture at the stop indicated by "f" In other words, the value of the *f*-stop is determined by dividing the focal length by the diameter of the aperture If, for example, the focal length of the lens is known or found to be 50mm , and the diameter of the maximum opening is found to be 1 inch (25mm), 50 divided by 25 gives 2, so the *f*-value of the lens at maximum aperture is *f* 2

If we want to calibrate the lens, we use the same formula Following through with the same formula, if we want to determine the diaphragm-opening for a stop-value of *f* 8 with the same 50mm lens, we know that while "D" is unknown, "f" equals 8 and "F" equals 50, and that in this case 8 equals 50 divided by "D". Therefore "D" must equal 50 divided by 8, which works out to 6 25mm or 2462 inches If we close the diaphragm down until its aperture is of that diameter, we can mark that point as representing *f* 8 according to the traditional formula.

The author testing lens transmission during his initial experiments The equipment now in use has been made more compact and a simple light box has replaced the baby keg as a light source

Unfortunately, however, this formula does not take into consideration the actual transmission characteristics of a lens It is the same for the simplest single-element lens and for the most complex of objectives which may be made of two, three, four or more different elements, in turn composed of cemented or uncemented elements of several different types of glass. Each kind of glass has its own transmission characteristics, and there is moreover a definite loss of light every time a beam of light passes from air into glass, or from glass to air

It is no wonder, therefore, that all of us have had the unpleasant experience of making a long-shot with, say, a 50mm lens, and then moving in to make a close-up with, say, a 3- or 4-inch lens of different design, and found that although our key illumination and our negative development were held at absolutely the same values, the scene made with one lens, though at the same indicated stop as the scene made with the other, might be as much as a stop or even more over or under the other in actual exposure and density

Accordingly, it seemed evident to us that the final step in securing consistent phototechnical quality must be to make use of some system of lens-calibration which would be based completely upon the practical light-transmitting characteristics of each individual lens The use of some form of photoelectric measurement of actual transmitted light, through the lens itself and from a known standard light-source, seemed obvious

Discussion of the idea with outstanding lens manufacturing firms, however,

(Continued on Page 157)

Right Close view of RKO's new camera boom note pneumatic winches generator for camera driving current and rigidly braced construction Below The boom in use at bottom dropping miniature bombs

RKO Builds Biggest Boom for Shooting Aerial Minatures

By WILLIAM STULL, A. S. C.

With an avalanche of war-themed production under way, Hollywood's film industry, now more than ever before, needs new equipment to enable the special-effects cinematographers to accomplish things they have never previously needed to do on such a scale Yet due to wartime restrictions, the building of new equipment has become prohibitively difficult In many instances the question of building the equipment needed to make a special-effects shot possible has come to demand as much ingenuity as making the shot itself

An excellent illustration of this is a new boom developed by Vernon L Walker, A.S.C., and his staff in the Special-Effects Department of the RKO Studio for filming miniature scenes representing aerial bombings and the like With productions like "Bombardier," which centers around the training and combat action of Air Force bomb-aimers, in production or scheduled, such a device was obviously essential At the same time, no new materials with which to make it were to be had

So Walker and his designing engineer "Marty" Martin built a device which easily takes rank as Hollywood's largest camera-boom And they did it without using a single scrap of new material!

Something of the design and construction of the big boom will be seen from the illustrations The rectangular steel truss which forms the chassis was reclaimed from the underframe upon which marine sets were constructed, mounted on a massive ball-joint so that they could be rocked to simulate the natural rocking of a ship

Beneath this truss, suitable brackets—also of reclaimed metal—were bolted to carry four flanged railway type wheels on suitable axles These wheels carry the boom along a length of railway track some 350 feet long The rails used were reclaimed from tracks laid in another outdoor set, and were welded together to assure smooth operation Due to the extreme height of the boom's superstructure, it was decided to widen the track to the full width of the steel chassis. Thus, with a gauge of 15 feet and a total length of 350 feet, Walker's RKO Railway may be said to rank as both the broadest-gauge and the shortest railway in the world!

Across the center of the underframe is bolted a heavy steel girder upon which the boom proper is mounted This superstructure consists of two boom arms, constructed of wooden poles each 90 feet in length, and two somewhat shorter poles forming the central supporting arm All three of these upright members are strongly braced by steel cables which, incidentally, were also reclaimed from previous uses

The left-hand boom arm (as seen in the pictures) carries a mount for camera and crew The right-hand arm serves as a counterbalance, and is weighted with lead counterweights to offset the weight of camera and crew When necessary, these two arms are raised or lowered together, so that each counterbalances the other

Ordinarily, however, the camera and its accessories are hoisted into position without lowering the boom, while the crew scramble into their places along a ladder attached to the boom arm The boom is generally counterweighted to

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RUTTENBERG AND SHAMROY WIN ACADEMY AWARDS

HISTORY was made with the presentation of the Academy Awards for the best photographic achievements of 1942. Joseph Ruttenberg, A.S.C., became the first cinematographer ever to capture two Awards for monochrome cinematography. Four years ago he was awarded an "Oscar" for putting "The Great Waltz" on the screen, this year he received a second golden statuette for making "Mrs Miniver" the best black-and-white photographic achievement of 1942. In the color class, Leon Shamroy, A.S.C., with "The Black Swan," smashed tradition by becoming the first of the so-called "production" cinematographers to win an "Oscar" solo, without the collaboration of a Technicolor specialist. Tradition-breaking, too, was the fact that for the first time one studio had a total of six productions worthy of inclusion among the sixteen nominated for the two camera awards in the black-and-white division, four of the ten nominees, and in the color division, two out of six, came from the cameras of the 20th Century-Fox Studio. In the field of special-effects cinematography, Farciot Edouart, A.S.C., and Gordon Jennings, A.S.C., deservedly repeated their last year's win with their surpassing work on "Reap the Wild Wind." In the field of technical developments, Daniel B. Clark, A.S.C., and the 20th Century-Fox Camera Dept. won a Class II (plaque) award for the development of a radically new system of lens-calibration based on actual transmission values.

When we reviewed Ruttenberg's work in "Mrs. Miniver," we said "From start to finish, Ruttenberg's compositions and lightings command interest. They're very nearly flawless, and have an unusual blend of pictorial quality and strength. Such a treatment is singularly appropriate for a story like 'Mrs. Miniver,' for it visually epitomizes the qualities which have made such a heroic saga of real-life England under the blitz. . . . Ruttenberg's camerawork . . . unquestionably plays a vital, if silent, role in making 'Mrs. Miniver' one of the great pictures of the year."

Ruttenberg himself says: "In a year that has seen so many superlatively fine photographic jobs brought to the screen, I can only feel humbly thankful for the surprising honor that has been given to me. First, I want to express appreciation to my fellow-members of the A.S.C. who voted my picture the year's best. With so many perennially deserving artists among this year's nominees, and with such fine pictures, I feel almost embarrassed and enormously gratified, that my fellow cinematographers should decide I was worthy to be the first man ever to receive two awards.

"Secondly, I want to express my appreciation to all those who helped me to do what I did on the picture. There is no doubt that having a picture which is dramatically great, so that many of one's fellow professionals want to see it for entertainment, as well as for its photographic values, is a very great help to getting an award. The producers, the writers, the directors and the players made 'Mrs. Miniver' that kind of a picture, and I wouldn't deserve the name of cameraman if I hadn't bent my every effort to make my work measure up to theirs. In the same way, I owe a world of thanks to my crew, and to John Nickolaus' laboratory which processed the film. A director of photography is really no better than his crew and the lab behind him, and I want to give a very sincere 'thank you' to Operative Cinematographer Herb Fischer, and to Assistant Cameraman J. King Kauffman, Jr., and to all my friends and fellow-workers on the set and in the laboratory. I didn't win that award alone, *we* did it, working together as a team, and I sincerely wish there were some way of sharing the honor with every one of the many on the stage and in the lab who helped put me out in front."

At top of page: Joseph Ruttenberg, A.S.C. (left) and Leon Shamroy, A.S.C. (right) receive Academy Award Statuettes for the year's best black and white and color cinematography respectively, from James Wong Howe, A.S.C.

The other nominees in the black-and-white division included "Kings Row" (Warner Bros.), photographed by James Wong Howe, A.S.C., "The Magnificent Ambersons" (Mercury-RKO), photographed by Stanley Cortez, A.S.C.; "Moontide," (20th Century-Fox), photographed by Charles G. Clarke, A.S.C., "The Pied Piper," (20th Century-Fox), photographed by Edward Cronjager, A.S.C., "Ten Gentlemen From West Point," (20th Century-Fox), photographed by Leon Shamroy, A.S.C.; "This Above All," (20th Century-Fox), photographed by Arthur Miller, A.S.C., "Pride of the Yankees," (Goldwyn-RKO), photographed by Rudy Mate, A.S.C.; "Talk of the Town," (Columbia), photographed by Major Ted Tetzlaff, A.S.C., and "Take a Letter, Darling," (Paramount), photographed by John Mescall, A.S.C.

Color-award winner Leon Shamroy, A.S.C., shares with Edward Cronjager, A.S.C., the honor of having productions nominated for awards in both the black-and-white and color divisions. When we reviewed his achievement in Technicoloring "The Black Swan," we said, "Leon Shamroy, A.S.C., very decidedly goes to town in this richly-Technicolored pirate story. Indeed, after seeing 'The Black Swan,' it's hard to think of a pirate story in monochrome. Shamroy paints his picture in broad, vivid strokes, as becomes a story in which colorful settings and colorful costumes and ac-

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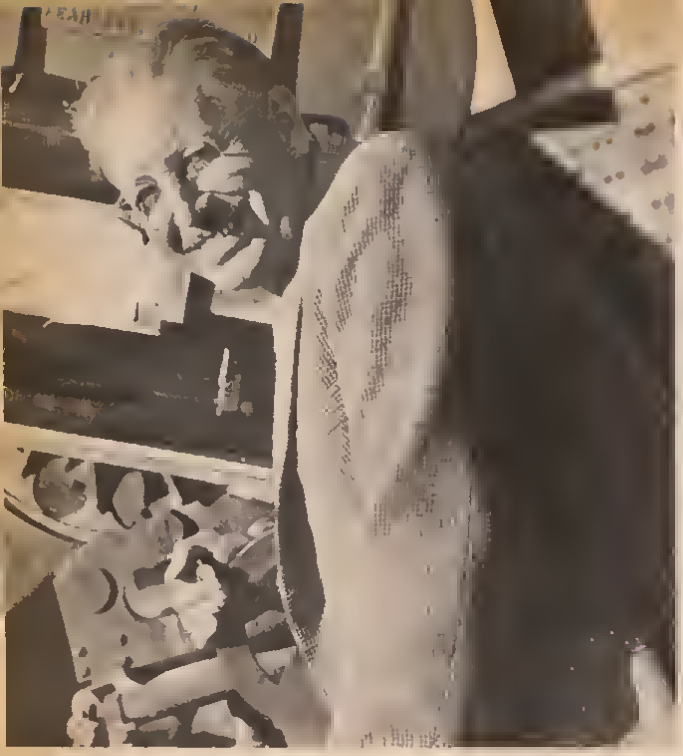

Aces of the Camera XXVII:

Ray June, A.S.C.

By WALTER BLANCHARD

WHEN a music-lover hears a recording by Fritz Kreisler, he doesn't need to be told who is playing in undeniable style, and a clear cut artistic vigor in the playing tell him that, without need of words. In the same way, those who know and love fine cinematography don't need a credit title to tell them they're viewing a picture photographed by Ray June, A.S.C. For, like Kreisler, Ray June has an indefinable style of his own—a clear cut, vigorous artistry which makes his work unique.

It is no wonder, then, that his fellow professionals will describe him to you as that rare thing, a cameraman's cameraman. They admire the perfection of his work—even on routinely unimportant pictures. And they admire him even more for himself, for he is the finest of fellow workers and friends.

He's a real veteran of the industry, too. This spring he is starting his twenty-eighth year as a First Cameraman — which would probably seem incredible to the folks who, back in 1914, urged him not to go into any business so unstable as the movies.

As a matter of fact, when Ray informed his parents that he wanted to make cinematography his life work, he met with objections on other grounds. People back in 1914 didn't rate film folk very highly in any way—especially as regards morals. And it was particularly that way in a small town like Ithaca, New York, where Ray grew up. There was a studio of sorts in Ithaca in those days, where Pearl White made her serials, and the ways of the film folk seemed strange, and more than a little wild to many of the residents. Ray's parents put their foot down flatly on any thought of their son's going into such a business.

But Ray diplomatically suggested that, as he would begin by working nights in the film-laboratory, it wasn't likely he'd come in contact with any influence more contaminating than the pyro used to develop the film. He must have put his case very persuasively, for in November, 1914, his parents grudgingly let him report for work as a helper in the studio's lab.

He didn't keep that job very long, though. If the Ithaca folk weren't particularly happy about having the film people in their midst, some of the film folk, accustomed to life in a big city like New York, were just as unhappy at being what they considered stuck out in the sticks. The laboratory chief was one of them. He was a temperamental Italian, and he longed for the bustle and excitement of life in New York.

"One day," Ray says, "he just didn't come to work — and there was the day's shooting to develop and print—and only me to do it! Luckily, I'd learned enough so I knew how to mix the chemicals right, and how to dunk the film-racks into the developing tank. So I became the studio's laboratory-man on very short notice. I didn't spoil anything, so after a few days of very natural doubt, the producers decided I might as well keep on running the lab.

"It wasn't very many weeks after that that the cameraman of the company also found his yearning for the big town too strong to be resisted. When one morning he didn't show up, my bosses asked me if I thought I could run the camera. I'd spent as much time as I could watching what the former cameraman did, and how he did it, so I replied I thought I could do it.

"This was just about three months after I'd first set foot in the studio. And there I was a full-fledged First Cameraman! You might better put that, 'There I was, a cameraman—period.' There were no such things as Assistants in those days—much less Operatives or Still-men.

"As a matter of fact, I was the whole photographic staff of that studio. During the daytimes I shot the pictures. In the evenings, I developed my negative. Early the following morning, I'd print it. In between, I'd load and unload the magazines, and keep the camera clean and in good condition. Outside of that, my time was more or less my own.

"Luckily for me, camerawork in those days was a good deal easier than it is now. Most of our scenes were shot outdoors. When we made interiors, we still used daylight. We worked on an open stage, glass-covered like a greenhouse, and with strips of muslin overhead to diffuse the light. Most of the time our

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THROUGH the EDITOR'S FINDER

SINCE the night of March 4th when, at the Fifteenth Annual Academy Awards Banquet, the Industry suffered its supreme humiliation, we have heard a great deal of talk to the effect that this would probably be the last Academy Banquet. In all sincerity, it seems to us that unless a vast and fundamental change is made in the handling of these affairs, this year's banquet certainly should be the last.

In making this observation, we do not for a moment overlook the difficulties which annually face the Academy planners. We realize fully that with increasingly world-wide publicity, this "family party" at which the people of the motion picture world gather to honor their own has grown increasingly out of hand. Certainly for the last ten years no one—least of all the industry's technicians and the representatives of the press assigned to "cover" the event—have attended with any slight expectation of comfort. We have grown used to being shunted off to crowded tables in the more remote suburbs, so distant from the platform that we scarcely expect to see or hear anything of what is going on. We are becoming inured to enduring meaningless speeches by political prominents who know nothing about the industry, and care less. We can even begin to understand why the actually important proceedings of the evening are often side-tracked so that these more or less distinguished orators may go on the air to help finance the proceedings—and incidentally to bore countless radio listeners who tuned in in the hope of hearing the actual presentation of Awards to their favorites.

But there are a couple of things we cannot understand. First, why can't the proceedings be confined strictly to their announced purpose—a "family party" of, by and for the industry, in which the industry itself gathers to honor outstanding achievement by its own people? Everyone else—the newspapers, the radio, and the national government itself—recognizes that motion picture names and personalities are the most newsworthy drawing-cards in the world today. They call upon our actors to put over war-bond drives and to tell women in defense plants how to wear their hair; they call on our technicians to teach Army cameramen how to photograph pictures and record sound; on our art directors to develop new and better methods of camouflage. Why, then, do we need outsiders to tell the world what a great job our industry is doing for the war effort, or how significant are our honors for cinematic achievement—?

Second, the motion picture industry is one of the extremely few great arts based on creatively-applied science; the Academy itself includes "Sciences" as well as "arts" as a key part of its name. Why is it, then, that the representatives of the creative sciences—of which the cinematographers are an important group, though by no means the only ones—given a poor relation's brush-off in the method of presenting the Awards? Why is it that the representatives of so many other groups—not only the actors, but also the writers, directors, producers, even musicians—were given a chance not only to read off the list of nominations, but often to expatiate on the contributions of their respective branches, and the recipients of the Awards to make speeches of acceptance (often much too patently prepared), while the Awards for cinematography, special-effects, sound recording, and the like, which are the real foundation of the industry, were railroaded through with scarce a half-dozen words spoken in both presenting and receiving all of these Awards combined—?

We will admit that the industry's technical people are neither as glamorous nor as widely publicized as the players they bring to screen and loudspeaker. Joe Ruttenberg certainly doesn't have the glamor with which his photographic skill invested "Mrs. Miniver" Garson, and Nathan Levinson hardly cuts as swashbuckling a figure as does "Yankee Doodle" Cagney. But in each case the patient, behind-the-scenes efforts of the one helped bring the other his or her "Oscar."

The glamor-folk in front of the cameras admit, as Rosalind Russell did so charmingly two years ago, that they owe their popular success as much to the patient skill of the unpublicized men who make them look and sound as they really don't, as they do to their own unaided efforts. And somehow, we've always figured that any organization which claimed to be devoted to the arts and sciences of the motion picture should in all honesty bend every effort to publicize this fact, at least when it comes to giving public recognition of outstanding technical and artistic achievements. Certainly, the last year has proven that no words could be too flattering (at least when spoken "off the record") when some of these people found it necessary to wheedle the industry's technical people to do a job they'd promised to do but couldn't deliver on their own abilities!

It is an open secret that today there is a strongly supported move on foot for the industry's cinetechnical people to withdraw from next year's Awards and—regardless of studio or organizational affiliation—to create and present their own awards for the year's best achievements in monochrome and color cinematography and special-effects. That is as it should be. And we've an idea that it will find a warm response among the other arts and crafts of the industry's technical community, and among many members of the press, as well. With thousands of laymen, in and out of the industry, growing daily more aware of the vital part the industry's cameramen, sound engineers, special-effects experts and other technicians are playing in making screen entertainment possible, it is time that the industry's technicians stopped being the poor relations at the industry's annual back-slapping feast, and stood as solidly on their own feet as they do every day on the set.

•

SOMETIMES we wonder if the industry isn't overlooking a very big bet in its special effects specialists. We've known of productions which carried a budget of more than a half million dollars for special-effects work alone, and of which from half to three quarters of the release footage—including important scenes with the principals—was planned, produced and directed by unsung special-process cinematographers. Of course these men are valuable where they are—but mightn't they prove even more valuable if placed in charge of complete productions, instead of merely parts of them?

•

A MONTH or so ago a cameraman remarked to us, "You know, they say there's a shortage of cameramen—but I'll be darned if I see any evidence of it! Everywhere I go they tell me they like my work, but there's nothing open now—'come back next week, or maybe in two or three weeks.' Meanwhile, I've a wife and a couple of kids to support. What am I going to do?"

A few weeks later, we saw him again—in the uniform of an Army lieutenant. He'd solved his problem. Uncle Sam may not pay his shavetails much, but that little, coming in fifty-two weeks a year, is a lot better than the much higher wage of a cameraman coming in perhaps half-a-dozen weeks or a month or so out of the year!

As the industry ordinarily thinks of such things, that chap's enlistment wasn't exactly a crippling loss to the industry. He wasn't a spectacular camera-ace—just a sincere, efficient young man who had given fifteen or twenty years of his life to the industry, and had mastered his trade so well that everyone knew he could fit into any studio camera or special-effects department and carry on without losing an inch of film or a moment's time on even the most difficult shots. We've got several score like him, all the way down the line from directors of photography to assistant cameramen and film-loaders. For years they've been a tacitly recognized convenience—fellows you could call in for a day's work, or a week, or a whole production, with no question as to their dependability . . . and no thought of offering them the security of a contract. The industry could afford to use

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A.S.C. on Parade

Capt. Joe Valentine, A.S.C. of the Army's Special Service Division is a man of his word. Last month, you'll remember, he promised to send us a picture of himself with his shiny captain's bars—and here it is. With this evidence, we're only too glad to apologize for inadvertently demoting him to a mere shavetail!

•

Lt. Harold, "Winnie" Wenstrom, A.S.C., U.S.N.R., is in town on leave after two years' service with the Navy "somewhere in the Pacific." We're going to have to lure him in front of a camera while he's here, for his two rows of campaign and service ribbons are impressive to see.

•

A big salute to our leatherneck cinematographer, **Henry Freulich, A.S.C.** A few months ago we chronicled his enlistment in the Marine Corps as a private slated for Officers' Training. More recently, we reported he had been commissioned as a Lieutenant. And now, **Henry** is very deservingly a Captain and so we hear, finding the Marine Corps one swell outfit.

•

And **Stanley Horsley, A.S.C.** starts his military career the hard way, as a buck private in the Army. He makes the 42nd A.S.C. member in uniform to date.

•

Lt. Joe August, A.S.C., U.S.N.R., briefly in town en route from one military secret to another, looking younger and fitter than we've seen him in years.

•

And **Capt. John Alton, A.S.C.,** of the Army, in town briefly. Thanks for your cheery phone-call, **John**—and here's hoping for a chance for a better talk next time.

•

And **Charlie Lang, A.S.C.,** assigned to film a family-full of ghosts in "The Uninvited."

We're sorry to report that **Ray June, A.S.C.,** is laid up for a serious operation which will keep him in the Good Samaritan hospital for the next several weeks and away from the cameras for some time longer.

•

If we're to believe recent trade-paper reports, that old maestro **"Tony" Gaudio, A.S.C.,** has asked for his release from his Warner Bros. contract which was due to expire next October. We certainly hope this doesn't mean **"Tony"** is thinking of retiring. If he did, he would be universally missed. . . and Hollywood without **Tony Gaudio** wouldn't seem quite the same to any of us.

•

Lester White, A.S.C., Super-Chiefing East, where he's to direct the photography of Red Skelton's next, "Whistling in Brooklyn."

•

Did you know that **George Barnes, A.S.C.,** was an accomplished violinist? We didn't either, till columnist Hedda Hopper reported it. We'd like to thank La Hopper, by the way, for the way she gives the cinematographers such nice breaks in her column.

•

Sid Hickox, A.S.C., loaded with plenty of praise for his work on "Edge of Darkness," off to Sun Valley a locationing for "To The Last Man." And he tells us the thermometer there is averaging 20 below. Brrr!

•

Charley Clarke, A.S.C., does his winter picture making on T C F's ice-stage, filming Sonja Henie's "Wintertime." But he's got a nice new contract that ought to keep him warm—and plenty of heart warming praise for his last few pictures, too.

•

Karl Struss, A.S.C., dropped by at last to collect those stills we shot in our argument, months ago, about reflected-vs. incident-light metering. 'Twas his 26th wedding anniversary, too, by the way.

•

Versatile fellow **Harry Hallenberger, A.S.C.** Doing pick-up shots for Paramount the other day, he spent the morning shooting Technicolor, and the afternoon shooting black and white.

•

Dan B. Clark, A.S.C. and **Stanley Cortez, A.S.C.,** busy as a pair of bird-dogs co-chairmanning a committee representing the cinematographers of Hollywood, laying plans for making a filmic record—perhaps in Technicolor—of the big pageant being staged for Mme. Chiang Kai-Shek. The print is to be presented to her as a gift from Hollywood's cameramen.

Just after we left the office the other evening **Lt. Jack Greenhalgh, A.S.C., U.S.A.A.F.,** came by to leave this picture and tell us he was leaving for an unannounced military jaunt. We talked the other day with a Ft. Roach sergeant who seemed to indicate that the Air Force gang like **Jack** as an officer and fellow-worker.

•

Hal Rosson, A.S.C., off to Salt Lake City scouting locations for MGM's forthcoming "America." Does that mean Hal is at last going to get a chance at a Technicolor picture——?

•

Bet **John Boyle, A.S.C.,** was the only person at the "Young Mr. Pitt" preview to identify the narrator's voice as that of Carol Reed. **Johnnie** photographed Reed's first picture, you know.

•

Theodor Sparkuhl, A.S.C., gets the sought-after assignment to photograph Jimmie Cagney's first United Artists' production, "McLeod's Folly." No folly to picking **Ted** for that assignment, anyway!

•

Between paragraphs note—nice to see the gentleman from Laguna, **Gordon Pollock, A.S.C.,** up from his beach home for a visit.

•

Paul Ivano, A.S.C., has reason to smile with "Flesh and Fantasy" completed, he's signed to a fine new Universal term contract, and assigned to make a big special starring Jean Gabin, and directed by Julian Duvivier.

•

Note to Mrs. **George Meehan.** Your hubby tells us you always look through the magazine for his name, and hide it if you can't find it. Hope you won't hide it this month.

•

John Arnold, A.S.C., looking relaxed now those Signal Corps camera classes are over, getting up steam to instruct several classes of Marine Corps cameramen.

PHOTOGRAPHY OF THE MONTH

FOREVER AND A DAY

RKO-Radio Release.

Directors of Photography: **Lee Garmes, A.S.C., Robert De Grasse, A.S.C., Russell Metty, A.S.C., and Nicholas Musuraca, A.S.C.**

This is the picture which, over the period of the last two years, a volunteer group including all but two or three of the British writers, directors and actors resident in Hollywood have cooperatively produced as a contribution to the charities of their two nations. Surprisingly, it emerges not as the patchwork one might expect, but as a surprisingly well coordinated piece of cinematic entertainment.

The same is true of the photography which was done by at least four officially credited directors of photography, with their work necessarily intermingled and spread over a period of two years' shooting. So expertly have they done their work that it is almost impossible to tell where one's contribution leaves off and another's begins. As a matter of fact, if you try to pick each man's contribution, you're likely to guess wrong, as this reviewer did after the preview when he started to compliment one man on a sequence he thought he had surely identified—and found instead that it was done by two of the others!

"Forever And A Day" is decidedly one of the most expressively-photographed of recent films. There were no "commercial" restrictions to inhibit the cinematographers in their use of extreme low key effect-lightings; no "star" names to be photographically protected at any cost. The result is a production in which photographic effect is at all times planned to serve solely as a vehicle for dramatic mood, without any of the restrictions which so often keep cinematographers in a rut of routined commercial safety.

AIR FORCE

Warner Bros. Production.

Director of Photography: **James Wong Howe, A.S.C.**

Aerial Photography by **Major Elmer G. Dyer, A.S.C., and Charles A. Marshall, A.S.C.**

Special effects by **Rex Wimpy, A.S.C., and Hans Koenekamp, A.S.C.**

"Air Force" is one of those pictures you shouldn't miss. Dramatically, it's one of the most completely realistic air-war pictures ever screened; photographically, it is sure to prove one of the outstanding camera-achievements of 1943.

You really should see "Air Force" at least twice. The first time, the complete realism of story, direction and acting will probably overshadow your interest in the photography. Only on a second viewing will you realize how powerfully —and how self-effacingly — Jimmie Howe's camerawork contributes to making "Air Force" the great picture it is. At first, you're conscious only of the realistic mood he maintains from start to finish; but later, you begin to realize how deftly his camerawork, compositions and lightings have been used to strengthen the dramatic moods of the action.

If there are such things as Academy Awards next year, "Air Force" will unquestionably be one of the strongest contenders for the one for the year's best special-effects camerawork. A truly remarkable proportion of the production's release footage was shot under the direct supervision of Byron Haskin, A.S.C., and his special effects staff. Both Haskin, the two special-effects cinematographers credited, and special-effects Unit Director Roy Davidson deserve endless credit for this work. Most spectacular, of course, is the miniature work, which shows the bombing of a Japanese fleet (presumably the Coral Sea battle), and some aircraft landings and take-offs. The perfection of the background projection and optical-printer work will all too generally pass unnoticed. Yet without them—and their excellent coordination with the "production" sequences—"Air Force" could not begin to tell its story.

HELLO, FRISCO, HELLO

20th Century-Fox Production (Technicolor).

Directors of Photography: **Charles G. Clarke, A.S.C., and Allen Davey, A.S.C.**

With "Hello, Frisco, Hello," Cinematographer Charles G. Clarke, A.S.C., makes an unusually auspicious debut in Technicolor. The picture itself is one of the familiar series of 20th Century-Fox Technicolored musicals, but Clarke and Davey have invested it with a more than ordinarily excellent photographic mounting. This, despite considerable handicaps; some scenes, like the opening one, offer extremely difficult problems in coordinating intricate moving-camera shots with changes of lighting, music and action, while at various times during production some, or all of the principals were in poor health.

Clarke and Davey have surmounted all these obstacles unusually well. They have kept the principals—especially Alice Faye and Lynn Bari—looking much more than ordinarily well. And where the opportunity has offered (as in the London stage sequence) they have achieved strikingly pictorial effect.

No comment on this picture would be complete, either, without mention of the unusually fine color art-direction by James Basevi and Boris Leven, which takes place as one of the very best achievements in this field so far.

SHADOW OF A DOUBT

Universal Production.

Director of Photography: **Capt. Joseph Valentine, A.S.C.**

This was the last production Joe Valentine photographed before entering the Army, and it is a very fitting swan song for him. When he told us of how he made the major part of this production on location in an actual Northern California town instead of under controlled studio conditions (See AMERICAN CINEMATOGRAPHER, October, 1942), some of us very understandably wondered if he could, under such unconventional conditions, do as well as he said his rushes proved. The completed picture provides a convincingly affirmative answer, for it is one of his very best achievements, and carries a note of realism which is refreshingly new.

Valentine's handling of both the locations and the people is excellent. In the latter part of the picture, it seemed to us that he did not present Teresa Wright as favorably as he did in the opening sequences; this, however may well have been more largely the fault of Miss Wright herself and of Director Hitchcock, in their concept of how she should portray the "shadow of doubt," which necessitated expressions and angles which do not show this player at her best. Some of the scenes of Joseph Cotten, too, seemed too obviously to be striving for effect, and carried a touch of the Orson Welles influence we've never before seen in Valentine's work. We can't help wondering, too, if the obvious "planting" of Cotten as the murderer in the opening of the picture didn't weaken Hitchcock's usually suspenseful treatment of the rest of the story. We've an idea it did.

THE DESPERADOES

Columbia Production (Technicolor).

Directors of Photography: **George Meehan, A.S.C., and Allen M. Davey, A.S.C.**

This lavishly-Technicolored "western" is certainly worth seeing from the photographic viewpoint. The exterior sequences—filmed, we believe, in Utah—are spectacularly pictorial, and certainly show the experienced hand of George Meehan, who is one of our favorite filmers of outdoor scenes.

The opening sequence, played entirely in night effects, gets the picture off to an interesting start. Some of the effect-lighted interiors, however,—especially those in the stable—seemed to us to have been lit a bit too sketchily. They showed a commendable imagination in lighting, but the extreme contrast between the fully-lit highlights and the completely empty shadows seemed unnecessary, and would have benefited greatly by more conservative control of illumination contrast.

Meehan and Davey have dealt unusually well with their players, with the exception of Evelyn Keyes, who was placed at an unfair disadvantage by an

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Making 16mm. "Horse Operas" in New Jersey

By REGINALD McMAHON

DISSATISFIED with Hollywood's version of what constitutes a thriller, a group of Passaic, N. J., youths have organized their own movie company, Adventure Pictures. Production up to present has always been hard ridin' westerns or jungle mysteries.

The group was organized in 1936 by twenty-year old Louis McMahon. Since he was a youngster, Lou has been going to the movies to see westerns and serials. He has studied them thoroughly and with this background, he gathered his friends together to produce his own photoplays. But rather than imitate Hollywood's accepted formula, Adventure Pictures is striving to produce westerns in a manner far different from the usual grade "B" hoss opera. They feel that this popular type movie story offers opportunity for more characterization and intrigue than has been realized.

So far they have succeeded in the successful elimination of heroines (which they consider a great step forward.) Director McMahon, as well as the rest of the group, believe enough westerns have been ruined by inexperienced, overly made-up actresses. Another point they object to is the elaborate costumes worn by the hero. "You can't create the atmosphere of the West by white hats, silk shirts, and crooning cowboys," is the young director's comment.

Adventure Pictures travels to locations via the local bus line. For western locations, the group uses the Paterson Mountains in New Jersey where the boulders have a striking resemblance to the west, in fact, most of the professional industry's early westerns were made on this location, before the industry moved to Hollywood. Their bandits' stronghold is an abandoned rock quarry, complete with towering cliffs and crumpling old shacks.

Every movie that Adventure Picture puts out must have its quota of hair-raising thrills. For this, the group's own stunt man is called in. A future production, this time a modern chapter-play, will feature him in a role similar to Richard Talmadge of the silent days. They plan to have fifteen chapters, each one a hundred feet in length. Practically the entire group has joined the local Y.M.C.A. to practice the stunts they intend using.

Above, making a scene from "Pals of the Plains" in the back-yard that was revamped into a Western town. On opposite page, top left to right, a dummy goes to its doom from a New Jersey cliff; middle, rearing horses are essential to Westerns; right, Adventure Pictures stunt man does his stuff. Middle left, Scenic beauties in a favorite location; center, director-producer Louis McMahon gives last-minute instructions to the cast while cameraman John Maluda lines up his shot; right, Louis McMahon who founded Adventure Pictures. Bottom, the troupe goes on location by bus—positively not chartered! Right, a miniature shot from "Mars," science-fiction epic now in production. Photos by Reginald McMahon.

After five years of movie making, three one-reel pictures, "The Texan," "Jungle Jim" and "Pals of the Plains" have been completed. These are simple films produced mostly for experience. Now the company is hard at work putting the finishing touches on "The Black Rider," a more pretentious production, requiring four summers to complete at a cost of over $200. Of the three thousand feet of film shot on this three-reel picture, only twelve hundred will be used.

During the filming of "The Black Rider," ingenuity had to be exercised to the fullest extent to keep expenses at a minimum and yet follow the elaborately written scenario. Although amateurs usually attempt something beyond their means, "The Black Rider" has so far worked out fairly close to the original conception.

The amazing acrobatics of Douglas Fairbanks, Sr., whose films are currently being revived at the Museum of Modern Art in New York City, inspired the boys to inject as many stunts into the film as they themselves could do physically or by camera trickery.

One of the thrilling stunts at the climax of "The Black Rider" called for the hero to cut off the escaping outlaw by climbing up a fifty-foot rope hand-over-hand. But the hero, instead of

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Some of the all-time great amateur films like Randolph Clardy's 8mm New Horizon (frame enlargements below) and Richard Lyford's Ritual of the Dead (right) should be studied as examples of forceful visual story telling

Accent On Pantomime

By STANLEY O. BEAN

WHETHER or not we amateurs have film "for duration" is no reason why our interest in this creative hobby need be rationed. When we have film, we should strive to make every foot count, not merely from the phototechnical standpoint of correct exposure, correct focus, and pictorial composition, but from the standpoint of telling a story visually by means of a correct photodramatic balance of long-shots, medium shots and close-ups which will center the attention of the audience on what our picture is trying to tell them, with a minimum of mental interruption from the mechanical means by which we are doing so.

When we haven't film, we ought at least to spend some of our leisure time studying and planning how to achieve that technical and story-telling smoothness. Those of us especially who enjoy creating photoplays, whether on silent or on talkie film, can make particularly good use of spare moments spent planning the best way to present future stories.

It isn't enough to have merely a story and a cast of people who as regards age, size and gender meet the bare outward requirements of the parts they are to play. Those who are to portray the characters should be chosen for their ability to express emotions with their eyes, face, hands and physical movements. And they should be so directed as to give those abilities the fullest play.

In this, the best of both professional and amateur photoplays can serve as living textbooks. But note—I said the *best* of them! The heyday of the silent screen was too often filled with features relying upon the printed title and upon popular names, rather than upon a portrayal of believeable people in plausible, human life dramas. Too many talkies have been produced from poor stories and cast with players dependent upon voice and noisy backgrounds to impress the audience, rather than upon visual-minded acting for the camera.

The amateur photoplay can't afford to fall into these pitfalls. Being amateur, it has to be more than just merely good in order to hold the interest of its audience sufficiently to be pronounced "good" by the average, non moviemaking spectator. Perhaps the most important single factor in making an amateur photoplay dramatically effective is careful attention to visual pantomime in both acting and direction.

Luckily, Hollywood's really fine cinema achievements—both silent and sound—offer us excellent examples of this to study and follow. We can benefit our own films enormously by analyzing the methods used by these top-notch directors, writers and cinematographers for putting over dramatic points visually. The players, too, who hold our attention by their convincing pantomimic performances should awaken in us a desire to lift our own films above the commonplace by making them really live.

Among recent big films whose players excellently demonstrated pantomimic values I can mention Alfred Hitchcock's suspenseful, "Suspicion," calling upon its principal players, Cary Grant and especially Joan Fontaine, to demonstrate inner thoughts and fears so convincingly as to arouse the emotions of the fan to despise or sympathize. The motor trip along the winding road above the sea gave much footage of film to unspoken, appealing drama, played only by the eyes and facial expressions.

Again in "The Invaders," the scene in which the Elder of the sect which worked in communal harmony, speaking to his people and to the escaped Nazis was essentially visual. Here much of the story was unfolded to us as the camera sought out the many faces—each profound in its revelation of defiance, hate, love, fear, hope, and understanding.

A lesson in building up to an intense outburst of smoldering inward emotions began with excellent unspoken dialog on the part of the Aunt in "The Magnificent Ambersons."

Sensitive, deep and tender emotions, so difficult to play with conviction, were ably demonstrated by Bette Davis and Paul Henreid in the unforgettable, "Now, Voyager."

Important critics of the legitimate

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There's A Job Overseas For Your 16mm. Sound Projector

By CAROLE LANDIS

Carole Landis packs her own 16mm sound projector for service at the front. (NOTE: This is not a publicity gag—Miss Landis' projector is really being shipped to entertain the men overseas. Ed.)

THE American boys who are fighting for you in Africa, in Alaska, on Guadalcanal and New Guinea—and in thousands of God-forgotten little Hell-holes all over the world that are only pin pricks on the map to most of us—need *your* 16mm sound-film projector. They've got a job for it to do that's as important as any gun or tank. More important, for it's a job for *them*—something that will make it easier for them to endure all the hardships and privations they face on those far-away fronts.

I can tell you that from first-hand experience, for I've just gotten back from nearly five months spent entertaining the boys in England and North Africa. Speaking in the physical sense, the boys over there—even at the firing front—don't go physically hungry. Maybe the cooking isn't like mother's, and the service interrupted by Jap or Nazi bullets, but there's food to eat, and enough of it.

But our boys in those foreign posts are starving for entertainment . . . entertainment to take their minds away from killing, and from the interminable waiting for something to do which is even worse. Entertainment to put them, for a blessed moment, at least, in touch with home and the little, routine things of life at home.

You and I, as we sit comfortably here at home, surrounded by scenes and people all too familiar to us, don't realize that. If we give it a thought, we probably figure those boys in the African force are lucky to be doing their soldiering amid all those strange and exotic scenes and peoples. We conjure up mental pictures of all the "Arabian Nights" movie sets we've ever seen, and picture our boys meeting veiled harem beauties as exotic as Hedy LaMarr, or Sheikhs like Rudolph Valentino. . . new places, new faces, new experiences at every turn. Maybe we grow a little envious.

But when you really get out there, as I did, you find it's something disillusioningly different. Dirt—heat—dust—smells—your "Arabian Nights" romance crumbles into a squalid—and mighty uncomfortable—reality. And above all, there's the maddening monotony that can drive men mad. There's fighting—yes, for some of them, but that only a part of the time. For thousands of them there's only the day in day-out job of driving a truck, or repairing tanks or planes. In between, when you're not on duty, there's nothing—literally *nothing*—to do. No books, no magazines, no radio, and nobody but the sweaty soldiers you've seen too damned much of anyway to talk to. Even if you should have one of the "soft" billets (Heaven save the mark!) in one of the base camps or cities, there's still nothing to do in your off-duty hours. The natives don't speak your lingo—and even if they did, there are orders (for your protection) against mixing with them or going into their cafes or show houses . . . too much danger of breaking Moslem taboos you never knew about, and insulting people who we want to be our friends, and who want to be, too, but who have their own peculiar customs, that can be outraged as easily as ours would be if some foreigner roller-skated into church smoking a pipe.

The answer to this is movies—American movies, the same pictures Joe Soldier might see if he was back home in Kenkuk. The touch of home that Ty Power or Alice Faye or Mickey Rooney or the Ahlrich Family bring. That . . . and something that takes your mind off real-life surroundings and hardships that are nearly driving you wild.

Hollywood's studios—bless 'em for it—are making available to the Army and Navy prints of all their latest pictures—often weeks before they're released to the cash audiences here at home. Since shipping-space is such a problem, the prints for overseas use are in 16mm.

You can ship a couple of 1600-foot 16mm. reels into a cargo-bomber's load where there wouldn't be room for the eight bigger, heavier 1000-foot reels and their heavy, steel shipping-case needed for the same picture in 35mm. And once you get there, today's 16mm sound projectors will do just as good a job of showing the film, with much less complication and trouble. I think it was General Vandegrift of the Marines who reported that as soon as a beachhead had been secured on one of the Jap-infested islands in the Pacific, one of the first things to come ashore would be a 16mm. sound projector and films—if any were available.

And how those boys revel in film entertainment! It doesn't matter if they've seen the picture four hundred times before—it's still something to take their minds off hardships and trouble. It's still a sight of normal American girls, doing normal American things. In Africa, we four girls never got over our amazement at the way the boys responded whenever we appeared—even if it was only riding in a jeep from one camp to another. Every soldier within eyeshot would drop whatever he was doing and stare at us, open-mouthed (and entirely reverent) with amazement. Sometimes you'd hear some of them

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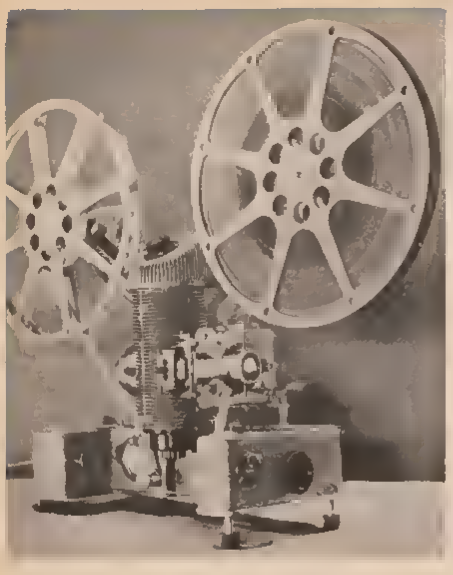

Take Care Of Your Camera And Projector — They're Priceless!

By JAMES R. OSWALD

WITH wartime restrictions making film and other photographic supplies more and more difficult to obtain, it might be well to stop and think about how we are going to conserve our present equipment so that it will give maximum service and enjoyment

To begin with, a good camera and projector are truly precision instruments, like a fine watch We should treat them as such and be proud of them, just as a good carpenter or machinist takes pride in his finest tools. Every camera and projector is accompanied by an instruction manual, frequently overlooked, but nevertheless there for a very definite purpose The service life and enjoyment of the instrument is directly dependent upon how closely these instructions are followed Although every make and model is slightly different, the basic rules for their care and maintenance are the same and hence can be briefly outlined here.

Taking the camera first, probably the most important items to remember are utmost cleanliness and careful handling The camera very likely has been subjected to much more abuse than the projector in that it has been "knocked around" here and there in your travels, been showered with sand at the beach party, or perhaps locked in the glove compartment of the car when the temperature was 110 in the shade Any dust or dirt on the lens, and particularly the aperture gate, can easily spoil an entire film by causing an unsightly fuzz fringe around the picture, about which nothing can be done later. It should be mentioned here that a very soft or lintless cloth must always be used to clean the lens and gate. As for oiling, most home-movie cameras are permanently oiled at the factory and thus require no attention in this respect whatsoever However, if yours is the exception, remember to keep the oil away from parts that the film touches and always wipe the excess off so that dust will not accumulate Consult your manual if in doubt

What applies to the camera also applies to the projector, so far as cleanliness is concerned Both are constructed basically the same, each having many of the identical or very similar parts of the other. Though the projector may not be handled nearly as much as the camera, much more actual running service is demanded of it. A film is run through a camera once, whereas the same film is run through the projector over and over again, to say nothing of the many professionally-made reels we may rent or purchase to add a little variety to our own program It is very obvious, therefore, that we must really show a little consideration toward projector maintenance if we expect to continue to be entertained by our films

As with all mechanical apparatus where there are revolving shafts and swiftly-moving parts, periodical lubrication is essential to smooth, quiet operation, and minimum wear and tear. The frequency with which this oiling should take place depends, of course, on the amount of use to which the projector is put Once a month should be sufficient, provided the machine is not used excessively A small oil-can should be used and the oil applied sparingly, being careful to wipe all the excess off the projector when finished Lubricate the upper and lower reel-spindles, the sprocket-shafts and any other place where oil cups are provided or where there are moving parts Use a high quality light oil, for good oil is a cheap investment in this case.

Lamp adjustment varies widely in different makes and models, hence nothing very specific can be said on this point Proper adjustment is very important, however, for maximum brilliance, and should not be overlooked. For best results, the reflected images of the lamp filament should be thrown between the direct images By holding a piece of white paper in front of the lens-mount with the lens removed, the lamp filaments are projected on the paper. If the projector has a "still" clutch, this should first be thrown to stop the shutter from interfering The paper is then moved back and forth until the filaments are clearly focused. Since the reflected images have to travel back to the reflector and then forward

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AMONG THE MOVIE CLUBS

INDIANAPOLIS LISTENS IN S O F—Members of the Indianapolis Amateur Movie Club at the group's March meeting devoted almost entirely to amateur made 16mm sound on film Left to right Lyons B Ford, Dr Arthur Richter, Dr William E Gabe L Dreidfield President) (and Projectionist) G A delValle Oscar Peters Roger Sneden Corresponding Secretary Elmer Culbertson Vice President Al Themes Willard Reynolds Jim Mekin Wilbur Ward Treasurer Al Kaufmann and (in foreground) Secretary Clarence Wetzel

Philadelphia Elects

March means election of officers at the Philadelphia Cinema Club The newly elected officers for the ensuing year are —President, George A Pittman; Vice-President, Arthur J. Hurth, Secretary, James R Mauchen, Treasurer, Herbert L. Tindall, Jr

To further enlighten the members in the art of movie-making we are showing a series of educational films from the library of the Harmon Foundation This series will run into the fall meetings and it is proposed that each film be augmented by a lecture to be given by one of our own members Mr A L O Rasch initiated the series with an enlightening talk on editing

A new feature, namely the door prize, was introduced by George Pittman, the two winning members each receiving $1 50 in War Stamps Members were asked to donate 10c each which will provide for War Stamps to be drawn at the next meeting

On the screen we were entertained with three professional sound films—Eastman Kodak Company's "Cavalcade of Color"; a film of North Carolina, showing the Shenandoah National Park, the East Coast and the Great Smokies; and a film of Virginia, featuring the Luray Caverns and other beauty spots of this state

FRANCIS M. HIRST,
Publications Chairman

Prize 8's For Westwood

At the March meeting of the Westwood Movie Club of San Francisco, three prize-winning 8mm. films from the library of THE AMERICAN CINEMATOGRAPHER were screened These were "Cattle Country" and "New Horizon," by Randolph Clardy, and "Red Cloud Lives Again," by Dr F. R. Loscher In presenting these films the program chairman read excerpts from a letter from the Editor of THE AMERICAN CINEMATOGRAPHER, analyzing each of these films. This commentary was appreciated by everyone present, as it made the pictures much more interesting and instructive than if they had been presented "cold" As an experiment, the showing of these films proved quite a success, attracting many visitors as result of publicity in the San Francisco press There were many comments to the effect that this was one of the best evenings of entertainment and education the Club had had in many months We all congratulate THE AMERICAN CINEMATOGRAPHER on this fine service rendered to movie clubs. The showing of outside amateur films is a definite stimulant to the making of better movies by our own members. The things we noted most in these pictures were the unusually fine camera-angles, the composition, and the lighting, in all three films. In addition the acting in "New Horizon" was exceptional for amateur work

GEORGE LOEHRSEN,
Program Chairman

Sound In Indianapolis

The March meeting of the Indianapolis Amateur Movie Club was originally planned as an all-sound meeting, to show what other amateurs were doing with 16mm. sound-on-films. However, the plans were changed slightly when our Lyrical Medico, Lt-Comm Dr. Joe Sovine, now on duty at a West Coast Navy Hospital, sent in a reel of 350 feet of beautiful 8mm Kodachrome, appropriately entitled "Pacific Suite," which was greatly enjoyed by all the members

The sound-film portion of the program included the Long Beach Cinema Club's celebrated "Fire From The Skies," screened through the cooperation of THE AMERICAN CINEMATOGRAPHER and Vice President Mildred J Caldwell of the LBCC This film was unanimously acclaimed the best picture of its type ever screened by the Club, and one of the best amateur films ever seen After seeing it, we decided to take a few more pains with our own forthcoming 1943 Club Production! Also screened was a film loaned by Kenneth Hezzelwood and Joe Lucius of the St Paul Amateur Movie Makers' Club. The subject was St. Paul's annual Winter Carnival, and the sound was post recorded on the original film with Hezzlewood's "Auricon," after the picture was shot, but before the film was processed There was no small amount of praise from the audience for both of these filmers for having done so difficult a job so well.

ELMER M CULBERTSON,
Corresponding Secretary.

Sound and Prize-winners for 8-16

Furthering its educational program, the 8-16 Movie Club of Philadelphia highlighted its March meeting with a lecture by George Beggs, sound research engineer, who spoke on the principles of recording and amplification The ensuing discussion which Mr. Beggs conducted proved particularly valuable in solving the problems of the members who had advanced beyond the early stages of home record cutting and amplification

Upon completion of the educational phase of its meeting, the organization followed with its regular entertainment schedule with a showing of "Nite Life" and "Mt. Zao," secured from the film library of THE AMERICAN CINEMATOGRAPHER The latter, especially, was pronounced a beautiful film

WALTER J MASTERS

HERE'S HOW I DID IT

By OUR READERS

READERS of THE AMERICAN CINEMATOGRAPHER constantly write us for answers to their movie-making problems, the most interesting of their questions are published from time to time in our "Here's How" department. But sometimes they turn the tables on us, and send in hints on how they overcame various movie-making difficulties for themselves. Here's a group of these helpful hints we feel will be of aid to other filming readers.

Speeding Up Kodachrome

Ice revues like the 'Ice Follies," "Ice capades," etc., are favorite movie subjects, and so colorful that Kodachrome is "a natural"—except for one thing: the comparatively slow speed of the Kodachrome emulsion, which usually forces ordinary folk with *f* 2.5 and *f*.2.7 lenses to shoot at 8-frame camera speed, which naturally makes the action move at twice normal speed.

I've found the answer to this problem by hypersensitizing my film—*after exposure*, but before processing—with mercury vapor. Depending on the time allowed for the hypersensitizing process, you can increase the speed of your film from 75 to 150% by this method. That means from a half-a-stop to a stop, or even a stop and-a-half. At the maximum it turns your *f* 2.5 lens into almost the equivalent of an *f* 1.6 objective, and does this without harming the color rendition, definition or graininess of the picture.

It's easy to do. I shoot 8mm, and I found myself a glass jar (originally a peanut-butter can) the mouth of which was just the right size to hold an 8mm camera spool edgewise, without letting it drop through, and a vacuum seal coffee-can big enough to hold the glass jar with a 25-foot spool of film in its mouth.

In the bottom of the glass jar I put a small amount of mercury. Above it, standing on edge in the mouth of the jar, I put my film, on its 25-foot camera spool, and with the little paper band around it to keep the film from unrolling. Then I put the whole thing into the tin coffee-can, replace the coffee-can's metal cover, and seal it up with tape so it is air-tight.

Then I let my hypersensitizer stand for at least 48 hours *at room temperature*, then open it up, and send the film to be processed. I've since learned that for spooled film, you get the maximum effect by leaving the film in the mercury fumes for a week or ten days. If you're in a hurry, you can speed things up by unspooling the film so the fumes can penetrate it more quickly, in that case you cut the time down to about 36 to 40 hours.

Either way, you can get a stop or more increased speed out of your film, so you can shoot at normal speed where otherwise you'd have to shoot at half-speed, or use an *f* 1.9 (or faster) lens.

FRED EVANS

Big-Screen 8mm

For the information of those interested in showing 8mm movies on auditorium-size screens, I herewith present my experiences with the subject.

I have a new Keystone A-8 8mm projector and have found that it is well suited to long throws. With the standard projection lens furnished with the machine I am able to project a screen image 9 feet 7 inches wide at a distance of 56 feet. The projector has a 750-Watt lamp and the screen image is as bright as I want it to be.

One point should be carefully noted, however. When blowing 8mm movies up to 9 feet or more, or anything larger than about 6 feet wide, it is necessary to keep the audience at least 20 feet from the screen. Closer than that, the image blurs out. Viewed from a distance greater than 20 feet from the screen the image is just as sharp as on a small screen.

JOHN F. MEEKER

"Breezing" in the Gate

Though the performance of the Bolex camera I use for professional 16mm camerawork is excellent, I noticed that in some instances there was evidence that the film was "breezing" slightly in the camera aperture—that is, bowing slightly, so that the picture would get a bit out of critical focus every now and then.

I cured this very easily, by a method which ought to work just as well with other kinds of cameras, and probably in 8mm as well as in 16mm. I cut out a tiny piece of Scotch tape, just the size of the 16mm frame, and put it on the aperture-plate just behind the picture-taking aperture. This is just enough to hold the film flat in the focal plane, and to prevent it from "breezing." I've shot literally hundreds of thousands of feet of film with my camera fixed that way, and with no damage to the film.

WILLIAM A. PALMER

Emergency Splices

It's embarrassing when the film breaks in your projector in the middle of a show, and a quickly-made emergency splice can help you keep the show running with a minimum of interruption. You can easily supply yourself with ready-made emergency splices if you will stick a few short strips of Scotch tape, just the width of your film (less perforations) inside your projector-case. When the film breaks, just slap a couple of these ready-cut strips on the film—front and back—and you're ready to roll again. If the Scotch tape doesn't cover the perforations, these emergency splices will even go through the projector without breaking.

C. WILLIAM WADE

Cleaning Lenses

Even the best of the so-called "lens cleaning" tissue is rough enough so it's likely to scratch fine lenses. In the studios we never use it. Instead, when we have to clean a lens we wrap a little tuft of cotton around the tip of one of the little wooden applicator sticks doctors use, dip the cotton in the regular lens-cleaning liquid you can get at any optician's shop, and clean the lens with this, using a slow, gentle circular motion. Afterward we dry the lens with a dry cotton-covered applicator.

Several things are important in this. First, see that there's enough cotton on the applicator to pad the end of the stick so the wood itself doesn't touch the lens. (If you have trouble making the cotton adhere to the stick, moisten the stick with water, or even saliva, before twisting the cotton on.) Second, don't use too much of the cleaning liquid; after dipping the cotton into the liquid, squeegee the excess liquid off against the mouth of the bottle. Finally, never scrub the lens; do everything gently, and use a very soft camel's-hair brush or a small, rubber bulb syringe to remove dust. And always keep the lens capped except when you're shooting!

S. L. LENZ

Replacing Photofloods

Now that Photofloods are frozen, everyone is looking for something to take their place. For black-and-white, several of the large-sized Mazda lamps, and particularly the different sizes of projector, stereoptican and spotlight bulbs will do excellently. But they are too red for use with Kodachrome unless you use a filter.

However, there are two ways of getting the brighter and whiter light we need for Kodachrome (when we can get the Kodachrome!). One is to use regular house lamps with a step-up transformer which will increase the voltage by one-third to one half or more. This gives much the same effect as a Photoflood, a very intense, white light, with about a 2 hour burning period.

The other way is to do what, so they say, originated Photoflood bulbs. There are special bulbs—usually rated at from 60 to 64 volts—made for lighting railroad cars. It was found that amateurs could get fine photographic light by burning these bulbs on regular 110-volt house current. If you live near a railroad center, you may be able to get hold of some of these bulbs, and they'll do today what they did years ago when they started the Photoflood idea accidentally on its way!

A. SMITH

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RE-BOUND BOOKS WITH BRAND-NEW LOOKS

Documentary, 400 ft 16mm. Kodachrome

Filmed by **Pat Rafferty**

When the average amateur attempts to make a movie about his business, he generally forgets two things The first of these is that some thread of story is usually necessary to make it palatable to audiences The second is that he should leave nothing untold—especially in close-ups—because details with which he may be expected to be familiar may be entirely unfamiliar to audiences who haven't his day to-day contact with that particular type of work

This picture is one of the comparatively few which fulfill both of these conditions almost perfectly For its thread of story, it tells of a book, borrowed from a library by a youngster, and accidentally torn apart in an altercation with a friend From this point, it follows the book from the library to the firm by which it is re-bound, through all the mysterious operations of rebinding, until it finally emerges looking for all the world like a newly-purchased volume.

The major part of the picture consists of excellent interior scenes In these, the lighting and exposure are excellent, and there are plenty of graphically revealing close-ups, and plenty of excellent explanatory titles In fact, with the exception of the fact that we thought there should be a full-screen close-up or two of the stitching operation, we couldn't find anything to criticize in this film.

WHEN OCTOBER COMES

Scenic, 175 ft 16mm Kodachrome

Filmed by **Ray Fowler.**

This is one of the most vividly colorful presentations of autumnal coloring we've had the pleasure of screening Photographically—as regards exposure and composition—it is very nearly flawless

Unfortunately, the other aspects of production fall down badly. Filmer Fowler has made a praiseworthy start by showing three children gathering autumn foliage, and keeping a fairly logical and obviously well-planned sequence of movement between one scene or sequence and the next He fails, however, to tell a story The story could be simple enough—perhaps a few introductory shots of the children's mother wishing she had some autumn foliage to decorate the home for Thanksgiving, or perhaps the children studying about autumn in school This could be followed by scenes showing the children (with or without their parents) deciding to go out and get some The actual "going" needn't be shown; in fact, it could be concealed by a gag, such as a close-up of an "A" sticker on the windshield of the family car, followed by a title "—so we won't tell you how we got there!" Following the shots of the actual gathering of the gorgeous gold and orange leaves, the picture could be quickly ended by a few shots of the colorful leaves being put into decorative use at home or at school

More careful cutting would be very beneficial Repeatedly we see action started, and never finished, or aggravating overlaps of action between successive scenes The pictures looks as though the filmer tried to edit it in the camera, and almost did so, but forgot to snip out these false starts and overlaps More subtitles—colorful, and perhaps worded a bit poetically—would also be helpful.

CERAMICS

Documentary, 299 ft 8mm Kodachrome

Filmed by **Lorin Smith.**

This is an interesting little picture about a man and his wife whose real-life hobby is making pottery. Strung on the framework of a visit to this couple by the filmer's wife, the picture lets the couple explain how they make their pottery It is told with excellent completeness, using the flash back technique to show how the amateur potters drive to the clay deposits to gather their raw material, and how they subsequently work it into pottery bowls, dishes, vases and ornaments

Both the photographic and the presentational techniques are excellent There are almost enough close-ups of the various operations ,and abundant titles—excellently made—tell the story clearly Wa would suggest, though, that most audiences would rather like to know how the rocky looking clay we see the potters gathering becomes the moist plastic that is molded on the wheel And it would seem better technique, too, if no shots of the husband at his wheel were seen until the two ladies enter the workshop and bring the story to that stage of the pottery-making.

THE MINOR MINER

Scenario type home movie, 50 ft 8mm Kodachrome

Filmed by **Wendell Taylor.**

Here's a very clever approach to the problem of making a movie of Junior and giving him something dramatically interesting to do Photographically, the picture has distinct shortcomings; but the cleverness of the staging lifts it well above these faults The handling of the mine cave-in is one of the best bits of amateur direction and staging we've seen in a long time

It is unfortunate that the introductory and closing sequences could not have been filmed under more favorable lighting conditions. Kodachrome is never at its best when shot under such heavy shade, and in this case, the contrast between these scenes and the rest of the picture, which was shot under normally bright sunlight, puts the film at a decided disadvantage. These initial and concluding scenes should have been shot at a more sunny time of day, or in a different, and sunnier, location

The editing and continuity of the picture could be improved by closer cutting and the removal of overlapping action, as for example in the long-shot where the youngster is shown approaching the mine from the outside, followed by a reverse-angle shot of the same action made from inside the mine Here the cut should have been made when the boy was at approximately the same spot in both scenes, rather than showing him walking right up to the entrance in one shot and then apparently bounding back ten or fifteen feet in the following scene, and going through the same action all over again.

The picture could stand more footage and more titles. Perhaps an entire new sequence could be added at the beginning, showing the boy being reprimanded for some minor offense as his father leaves for work in the morning —perhaps told he can't go to the movie, or some similar punishment which would give him reason for additional footage and for saying, via title, that he doesn't see any reason for being alive if he can't do so-and-so. This would furnish a needed dramatic contrast to his spoken title at the end of the film in which he says he is glad to be alive This and other spoken titles, by the way, should be intercut with close-ups of the person who is speaking.

A TRIP TO DREAMLAND

Scenario-travelogue, 150 ft 8mm Kodachrome

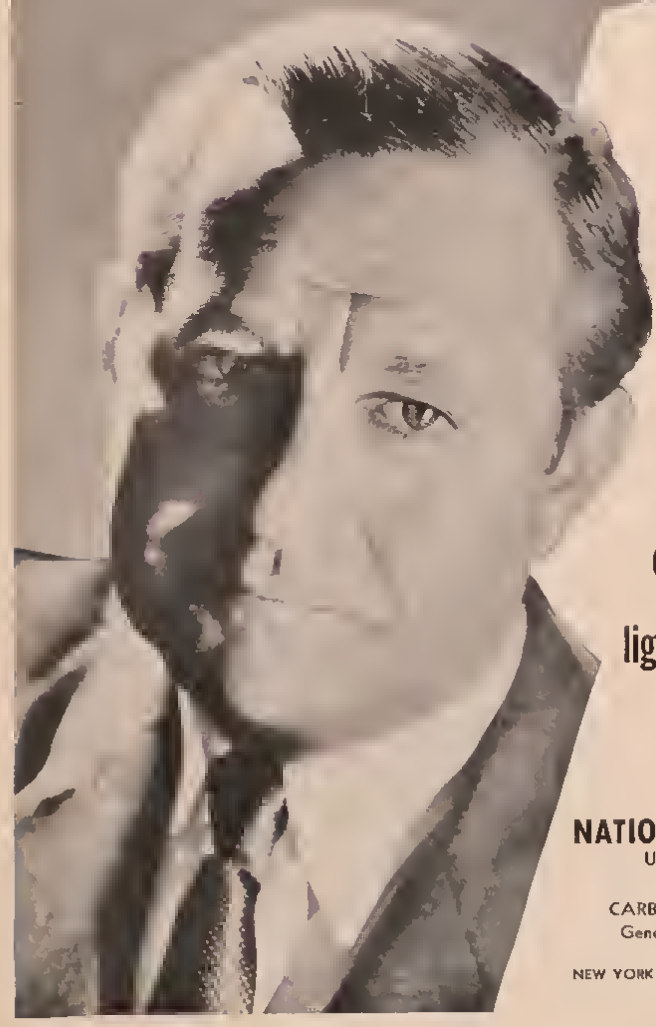
Filmed by Earl Everley.

Here's another little picture which points the way to how you can with very little new shooting revise your last-season's vacation shots into an interesting picture The story thread in this case is provided by an amateur who, coming home from work exhausted, sinks into his chair after dinner and, starting to read of films that would have won national honors, drifts off to sleep and dreams that his own vacation epic has done likewise.

The picture is at its best in these intimate tie-in shots The photography and lighting are good, and the planning and direction excellent, with many little "human-interest" touches which make

(Continued on Page 148)

ARTHUR EDESON, A.S.C.



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Photography of the Month

(Continued from Page 135)

unusually poor (and greasy) make up, which allowed the cinematographers no chance. The closing action of the wild-horse stampede was spectacularly handled, both directorially and photographically. Some of these scenes brought forth spontaneous applause from the preview audience, and all who saw the picture will certainly look forward to seeing more of Meehan's work in Technicolor.

EDGE OF DARKNESS

Warner Bros.' Production

Director of Photography Sid Hickox, A.S.C.

Special-effects by Willard Van Enger, A.S.C.

This picturization of the Norwegian "underground's" strife against the Nazis offers both director of photography Sid Hickox, A.S.C., and director Lewis Milestone the best opportunities either has had in a long time. As if realizing this they have worked together to make "Edge of Darkness" one of those rare productions in which direction and photography seem working genuinely together for dramatic effect.

Hickox has kept a note of realism in his camerawork which very artfully conceals the fact that when the dramatically significant moments arrive, his camerawork is excellently attuned to the necessary mood. At times, by deliberately underplaying his camera and lighting effects, he makes his treatment serve as an enhancing counterpoint to the dramatic values of the action. It is by long odds the most effective work we've seen from his camera in a long time.

The special-effects work credited to cinematographer Willard Van Enger, A.S.C., and director Lawrence Butler is generally excellent, though there are two or three miniature scenes which are distinctly "miniaturish," and do not help the picture.

Ray June

(Continued from Page 132)

sets were L-shaped painted flats, with maybe a door or a window in them if necessary, but oftener just a couple of walls—sometimes with half the furniture painted on them.

"But there was one point which made up for all the other crudities. This was the trick work. Putting thrills in those old-time serials called for a lot of it—and there were no special-process departments in those days. The man at the camera did it all, right in the camera.

"There was one advantage in using those old Pathés, though. When you had to do a double- or triple-exposure shot, you could develop a few frames of a test-strip and put the developed negative in the aperture of the camera, and line up the next part of your shot with it by focusing on it through the little peephole and magnifier at the back of the box.

"But matching up action was another thing. There were no frame counters on those early boxes, and the footage counters weren't as accurate as the ones they put on 8mm cameras today, if you were lucky, they might tell you within five or ten feet of where you actually were. Later on, some of the boys added Veeder type frame and footage counters; but at the time I'm talking about, the best way to be sure of your footage was to count the crank-turns, for you knew that each turn of the crank exposed 8 frames—one-half foot—and if something happened, say, ten feet from the start of a scene, you could hit it pretty accurately by beginning from a marked starting-point and counting off twenty turns of your crank. Another nice little complication of those days was that often you'd make the two or three different parts of a multiple exposed trick scene several days or weeks apart, and meantime you'd have each trick-shot taped up in its own little can, with cryptic markings scrawled all over the can. Often you'd have parts of a dozen or more of these shots lying all over the place.

"I'll never forget the thrill I had when the studio finally splurged and bought me a Bell & Howell. It was so much more advanced, and so much more accurate for my trick shots, that I was in a regular cameraman's heaven!"

When World War I came along in 1917, June naturally enlisted, and just as naturally was assigned to the motion picture division of the Signal Corps. There, his professional experience stood him in too good stead. He was assigned to the famous Signal Corps camera school at Columbia University, and spent his time training others—often men who had never seen a camera before—and seeing them shipped promptly overseas, while he remained at home, breaking in more photographic rookies, and occasionally "covering" some news-event for the Army. He must have been a good teacher, though, for many of the men he taught have since become well known figures in the industry, some of them as cameramen, others as directors and even producers.

After the armistice, he went back to his old job of shooting serials, for the same producers. When they moved to California, so did he. But his first really important assignment on the coast was with a different producer—Marshall Neilan, who was in those days one of the industry's best-known producer-directors. On his first picture for Neilan—a silent-film version of Booth Tarkington's "Penrod"—he had an experience which amazed him. He and Neilan's regular cinematographer, Dave Kesson, were to handle the "production" camerawork, he found, while a specialist in trick-photography was to have charge of the trick-work of making "Penrod," daydreaming in school, imagine he had learned fly, and float lazily up out of his seat and through the ceiling, only to return—suddenly—when his teacher rudely addresser herself to his physical body in the classroom.

"Why," asked June, "do you have to call in a trick specialist? On those serials we used to take people through brick walls, and do all sorts of much harder tricks, right in the camera."

To make a long story short, the work of the much touted "specialist" didn't come up to expectations, and June was given a chance to try doing the shot his way. His shot stayed in the picture—and he himself stayed with Mickey Neilan for several years.

Finally, in 1929, his first big opportunity came. An independent producer named Roland West was making one of the first talkies for United Artists' release, and he hired Ray June to direct its photography. That picture, "Alibi," introduced Chester Morris on one side of the cameras, and Ray June on the other. It was one of the best and most spectacularly successful of the early sound-films, not only as a box office hit, but photographically, as well. And for the following seven years, the United Artists executives saw to it that Ray June stayed at their studio, and entrusted their best pictures to his cameras. Among them was Samuel Goldwyn's "Arrowsmith" which, to this writer's mind, stands out as one of the two or three most perfect photographic jobs of the last dozen years, and along with Jimmie Howe's memorable "Transatlantic"—the first really well-photographed talkie—stands eternally to the discredit of the industry which failed to give them merited Academy Award recognition in their respective years.

Nearly seven years ago, June moved out to Metro-Goldwyn-Mayer, where he has remained ever since, one of the foremost artists in a studio with more than its ordinary share of outstanding cinematographers. At the Culver City studio Ray has proven his versatility by successfully handling virtually every type of production from frothy musicals and parlour comedies to heavy dramas and mystery films. His versatility has also brought him another, less enviable assignment: whenever any of the studio's other cinematographers falls sick or (whisper it softly!) encounters baffling photographic difficulties, Ray is sent in as the studio's unfailing pinch-hitter—and always delivers. One of these tasks was directing the photography of what is probably the all-time most spectacular musical sequence ever screened—the celebrated "A Pretty Girl Is Like A Melody" number from "The Great Ziegfeld." So incredibly complex was the timing of the camera-movement, the changes of lighting, the withdrawing of the successive curtains, and the intertiming of these with music and action, that the studio had begun to consider it impossible—until Ray June did it.

His approach to his work is characteristic of this. "Like anybody else," he says, "I study the script beforehand, and try to plan out in my own mind the most suitable treatment for the story

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and players. Then I try to come as close to that ideal as I can, usually, when I see the completed picture I am only too aware of how far short I've fallen. But if you take your work seriously to heart, I suppose you can't help feeling that way.

"One thing I try always to keep in mind: that a good cameraman must never let himself become willing to do things always the same way. It's one thing to develop an original style; it's something very different to let yourself fall into a routine and do things in routine fashion, just because it's easier or quicker.

"I think a big help in avoiding this is to study the work of other cinematographers, so that you can keep fully in step with the times not only in the strictly technical things, but in thought—in your approach to your work. Progress in cinematography isn't merely a matter of advances in our equipment and materials. It is much more a matter of changes in our conception of what constitutes good photography.

"There are certain enduring fundamentals, of course; but we may put them together in new ways, to gain effects that are more in keeping with the times. This applies equally to both technical and artistic treatment. Incandescent lighting, for example, is considered relatively modern; yet the first artificially-lit scenes I ever filmed were made under incandescent lamps about twenty-eight years ago.

"Only we used them differently. We would have a bank of half-a-dozen or so lamps—big blue ones—on the floor on one side of the camera, and a similar bank on the other side. Then we'd have a flat, overall lighting from a third bank of 'inkies' placed overhead, with back-lighting coming from a few arc spotlights behind and above the actors. Contrast that with a modern set, lit almost entirely with our modern Mazda spotlights, with scarcely a floodlight (and never a 'bank') in sight. It's the same with our ideas about definition, diffusion and almost everything else. Maybe we're re-using ideas we used once before, but today we do it with a new twist that attunes it to contemporary thought. Today's popular increased-depth technique may be similar in principle to the *f* 64 sharpness demanded of cameramen thirty years ago—but there's a world of difference, not only in the way it is used, but in why it is used. Then, we did it to conceal the limitations of our medium; today, we do something similar in order to take fuller advantage of the potentialities of our medium.

"It's easy to talk about 'the good old days,' and remember how in those days before the business grew so big and bustling, we had so much fun. But the fun is still there, though it has changed to the very different enjoyment of trying constantly to keep ahead of the parade, both technically and mentally. That's a challenge that's perpetually worthwhile for all of us, especially as the scope of our work is so constantly growing in its effectiveness, and in our ability to influence and help other people!" END

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Home Movie Previews

(Continued from Page 144)

the action ring true to most audiences.

The actual vacation scenes, while excellently photographed, don't measure up to this introductory sequence. They lack the story-continuity which could so easily have been added, especially since the same cast went on the vacation. The picture also needs a stronger ending, to point up the fact that it was all a dream. This could easily have been done by adding a few scenes in which the filmer found himself apparently receiving the desired honors, and was rudely awakened by his wife who wanted help with the dish-washing or some similar domestic task. Most complete titling would also help this picture.

THE LITTLE BUCCANEERS

Scenario type home movie; 140 ft. 16mm Kodachrome

Filmed by **Ted and Fay Geurts.**

This is an excellent example of cleverly capable "home movie" production. Instead of just making a disconnected series of haphazard shots of the family's new sailboat and the neighborhood youngsters, these filmers have built up a clever, yet simple, little story of juvenile piracy inspired by seeing Dad putting the finishing touches on the craft. This gives a valid excuse for putting the youngsters in colorful costumes, and for getting plenty of close shots of all the children. The thread of story, climaxed by a clever surprise ending, makes this home movie a film interesting to audiences beyond the mere family or neighborhood group who know the young actors.

Technically the picture is very well handled. The exposure and compositions are very good, though in the early scenes the cameramen apparently forgot that cross-lightings and back-lightings—especially in color—usually require from a half-stop to a stop more exposure than a straight reflected-light meter reading. This, incidentally, can be avoided by using the meter for incident-light rather than reflected-light readings.

Continuity is excellent, and the editing and titling are very nearly perfect. The simple camera-trick by which a rope is animated to spell out the wording of the main and end titles—done by placing the camera upside-down in relation to the title-card, and then pulling the rope which has previously been arranged to form the necessary letters—gives a cleverly professional touch to the film. It is unfortunate, however, that the same color-scheme—white lettering on a dark blue background—was not used throughout the subtitles, as well as the main title.

R-K-O Boom

(Continued from Page 130)

balance with the approximately 450-lb load of a standard high-speed black-

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—and he says

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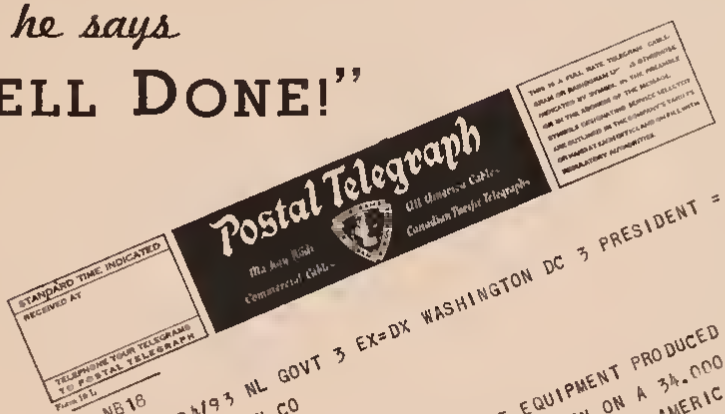

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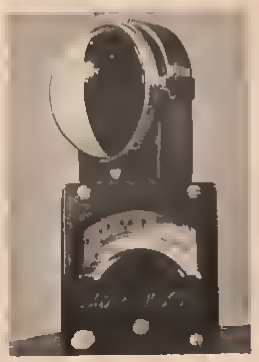

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and-white camera and two operating men. The design, however, makes provision for the increased loads which may at times be necessitated if miniature planes, foreground pieces, or additional operators may be needed.

The cables which hoist the camera into position, and raise or lower the boom, are operated from compressed-air winches which are powered from a portable air compressor. These units, too, were reclaimed from other service in the studio.

Current to power the camera is provided by a small gasoline-powered generator mounted on one corner of the boom's underframe. This supplies a much more constant power-supply than batteries, and since miniatures are shot silent, the noise of the generator is of course not objectionable.

It was originally intended to use an electrically-powered winch as the motive power for moving the boom along its track. As such winches were not available, however, a Caterpillar tractor was pressed into service. The tractor travels along a straight path beside the track, and is connected to the boom's undercarriage by steel cables fore and aft which, passing through pulleys anchored to "dead men" at each end of the track, form what is virtually an endless-cable arrangement, by which when the tractor moves in one direction, the boom moves automatically in the opposite direction.

Speeds up to 10 miles per hour may be obtained this way, and with a skillful operator at the controls of the "Cat," the boom may be started and stopped with unusual smoothness, especially when it is considered that the camera rides at the end of so long an arm, and is 82 feet from the ground.

The camera is mounted so that it shoots straight down at the ground, upon which any desired type of miniature set may be constructed. When desired, the bombings may be very realistically simulated by dropping miniature bombs from beside the camera. When it is not necessary to follow the bombs to their target, electrically-controlled explosive charges planted in the set may of course be used.

As designer Martin expressed it, "The boom is hardly the most finished piece of equipment in the industry, but it was constructed at an extremely low cost, almost entirely of reclaimed materials—and it does what we want it to. Moreover, when the steel underframe is wanted for another marine set, the boom can be disassembled within a few hours, and reassembled again when needed, for in our adaptation of the chassis we haven't in any way lessened the usefulness of the steel frame for the purpose for which it was originally built. Every component we've added is attached by bolts, rather than welding or riveting, so what we have is really a dual-purpose unit which can quickly be converted to serve either purpose, yet with no sacrifice of strength or efficiency in either use." END

Take Care of Your Camera

(Continued from Page 140)

to the white paper, they will not appear as bright as the direct images. Once they are properly distinguished, the lamp socket can be adjusted until the reflected filaments are between the direct filaments. This adjustment is very rarely necessary though, except when new lamps or lamps of different wattages are used. It might also be well to mention here that a bulb of the correct brilliance is almost equally important. One that doesn't provide enough illumination, or on the other hand one that is so bright that it washes out the picture, doesn't help your reputation as a good projectionist. Select one that is proper for the average distance and screen-size at which your pictures are shown.

So much for the camera and projector. Your films rank next in importance and your friends judge your cinematographic ability accordingly. There are many

various ways of arranging those reels . by dates, subject-matter, type, location, ad infinitum. Whatever your choice, those pictures for the most part can never be replaced, are priceless, and become more valuable as time goes on They will last indefinitely if given just a reasonable amount of care. Why not dress them up in their finest form *now* instead of considering them as potential prospects?

To do this may require excessive use of the scissors, but be frank with yourself. Isn't it much more satisfying and interesting to look at 10 feet of properly-exposed action-shots on the screen than 100 feet of poorly-exposed, dull scenes that appeal to no one but are there just because they happen to be part of the reel? Maybe some friends will aid in giving an honest opinion, if you are, like most of us, biased in your own behalf, and can't stand scrapping so much film. At any rate, don't spare the scissors

If at all possible, some sort of a sequence should be built up between individual scenes. This should have been taken care of at the time of filming, but a few titles here and there are a great help in bridging the gap between unrelated scenes They should be kept at a minimum, however, lest they defeat their own purpose Brief, direct-to the-point wording is sufficient, and easier on the audience. Sometimes a clever, humorous title adds snap to an ordinary scene, if used in the right place A preview of all your films before the editing is begun is advisable, as it refreshes the memory and suggests proper sequences Written or mental notes should he made of all shots worth considering for your new reels

Once the cutting has begun, every precaution should be taken to keep the scraps of film off the floor There are many different ways for the amateur to go about this editing systematically By placing the coils of film on a large table with an identifying piece of paper on each, much time is saved and the film is protected from dirt and finger marks. In this manner the pieces can be spliced together in organized fashion as planned A little more elaborate set up can be made by driving nails in a piece of plywood, about 3 or 4 inches apart The film can then be hooked over the nails which are numbered to correspond with an index sheet, listing each scene When the film is all properly arranged, long leaders should be placed on the beginning and end of the reel This saves wear and tear on the actual picture area and enables the film to be started from the very beginning Unexposed, low-cost positive film is excellent for this purpose, or if this is not available, any old discarded film will serve in a pinch. A very good idea is to save for this purpose all the leader from the laboratory reels your film is returned on after processing Another thing, always use reels of the maximum footage-size allowed by your projector It saves that constant rethreading which is so boresome to an audience.

With the main part of the job accomplished, it is a wise procedure to clean the films to rid them of any dust they may have accumulated when in the process of editing Any good, reliable film cleaner will do if instructions are carefully followed This completed, the next step is to label the film containers for easy accessibility at all times A typewritten label covered with a piece of Scotch transparent tape makes an attractive identification which is easily read and will stick permanently on the carton or tin Sometimes people prefer to label the film leader also. If the leader is frosted or blank film, this can be done by using India ink and is an added precaution in selecting the desired film

There is much to be said in favor of presenting films with a musical background supplied either by a simple electric phonograph or a more elaborate automatic record changer or perhaps a dual-turntable assembly If you have never tried playing records with your movies you are in for a pleasant surprise when you try it You don't have to be a sound technician to handle the job properly Common-sense will tell you the right type of music to select

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for each film At the conclusion of each selection, fade out the music gradually by turning off the volume control and fade in the new recording by gradually increasing the volume This makes for more harmonious blending and is as important as fades and dissolves are to a movie The dual-turntable referred to above has the added advantage of giving continuous music without interruption by blending the end of one selection with the beginning of another, similar to a lap-dissolve in a film.

In conclusion, let us resolve to treat ALL our photographic equipment as it deserves to be treated. Let us learn to get the most out of our hobby, no matter how meager or elaborate our equipment is If we can do this we have many pleasant hours of entertainment in store for us . . . not only in the near future, but for a lifetime END

Accent on Pantomime

(Continued from Page 138)

stage admit the splendid training the cinema affords players who will study and absorb the successful effect they may achieve before the camera lens. Such a critic as Elliot Norton of the Boston Post had this to say of Paul Lukas, as Kurt Muller in the stage play, "Watch on the Rhine," (which, by the way, has lately been made into a picture), " . . . But Mr Lukas can tell you what his man is thinking and feeling, and even what he has thought and felt for the past years, with his eyes alone

"Because playhouses are big and gestures or vocal displays are generally considered more effective, most actors of the stage are not now masters of pantomime Movie actors, on the contrary, compelled to face a curious and demanding camera, have a chance to develop pantomimic ability It is perfectly possible that Mr Lukas' incredibly successful use of it in this play is a matter of film training"

Examples of excellent silent-film pantomimic technique are available to most of us through the film rental libraries, most of which still carry both 16mm and 8mm reductions of some of the better silent features Organized film-study groups, I believe, can also obtain 16mm prints of the pictures in the library of the Museum of Modern Art, which is an unexcelled collection of the most magnificent professional productions from the very earliest experiments up to the more recent years of sound.

In using any of these silent films, by the way, it is most important to remember that they were photographed for projection at the silent standard speed of 16 frames per second, and if run faster (as on sound projectors) they will seem laughable, and their action exaggerated Run them at their correct speed, even though some of them might have a musical sound-track added You'll get more benefit by viewing them silent, at the correct silent-picture speed, than by listening to the added music which necessitates speeding the projector.

Charlie Chaplin has been heralded as the greatest of silent-film pantomimists but you'll find much to learn from almost any of the outstanding players of the silent-picture days. If you can get hold of some of Charles Ray's old silents, you'll find a lot to study in his acting, for many actors have gone on record as considering him an even more expressive pantomimist There's a lot to support this contention in one of his pictures I believe he held a single close-up for more than 200 feet (that's over 80 feet 16mm) in which he not only kept the audience interested, but made every frame play an important part in advancing the story! And he had no dialog to help him in this achievement he had to carry it solely on facial pantomime

Some of the Museum's German pictures—especially "Variety" and "The Last Laugh," with Emil Jannings—are also outstanding studies in pantomime. The latter picture, by the way, was told entirely in pantomime, without a single subtitle.

Among the more easily available rental films, don't overlook films like "The Covered Wagon" In it—especially among the character players like Alan Hale, Tully Marshall and Ernest Torrance, you'll find plenty to study in putting over characterizations by visual means

Some of the outstanding amateur films have shown careful planning, combining story continuity with a player or players with understanding of audience appeal through the part they portray, using silent art instead of elocution as their medium of expression James A Sherlock's "Nation Builders" was a fine example of a complete photoplay

A short, one-man production of utmost simplicity impressed many at a Duncan Little Party, a few years ago —a color reel too—from the lens of that serious, cinema-minded Fred C Ells, "Consider the Lilies" Silent eloquence on the part of a man and his blossom !

Dr Robert Loscher's "Red Cloud Lives Again," and Randolph Clardy's "New Horizon," both Grand Prize winners in THE AMERICAN CINEMATOGRAPHER'S International Amateur Movie Contests, show that visual-minded acting and direction can be applied to 8mm as well as to 16mm or 35mm

"Tarzan, Jr," with which William A Palmer and Ernest Page won the first of these Contests ten years ago is another worthy of study, and one which shows that children are just as capable projecting sincere, pantomimic characterizations as are adults. Maybe more so, since they have fewer inhibitions

J Kinney Moore's "Prize Winner" is another amateur film that deserves study if you're interested in characterization and story presentation And those who had the privilege of seeing the films turned out by Richard Lyford, Jr, before he went from the amateur ranks to the professionalism of the Disney Studio and, more recently, into the Army's photographic service, can vouch for the fact that there was at least one amateur who could turn out a chiller melodrama with almost as great force and convincingness as a professional Boris Karloff thriller. More recently, young David Bradley's feature-length films like "Oliver Twist" and "Peer Gynt" have been amateur productions with a definite accent on visual characterization.

A look at almost any of these films is enough to make you want to get busy and try to turn out an equally fine picture of your own. Unfortunately, under today's conditions, not many of us can do that, though it might be possible if a sufficiently organized and enthusiastic group banded together and pooled their film, transportation, spare time and other resources

But after all, the most thoroughly satisfying pleasure enjoyed by all amateur movie producers is the realization that there is a hobby for combined talents and abilities, and which offers unlimited possibilities. And this pleasure can be enjoyed almost as much in its mental aspect of planning and anticipation as in the actual realization.

During this crisis, time for relaxation is precious. Many of our friends have been called into uniform; others follow the clock around in the War Industries But now and then we should make it a point to get together at our cinema club—at your house, or at mine —and look over some of these old reels, talk over new ones, and plan outlines and scripts for future films.

Maybe it will be only a matter of talk and paper planning, but it will prove a worthwhile relaxation, and one which will help your future picture-making. Think in terms of camera-angles and lighting, of cuts and transitions Above all, think in terms of plain, direct acting and visual story-telling not wholly dependent upon titled speeches or recorded words

Compare notes with your group, get up group parties to see the good movies at your local theatre, so that you can analyze the technique together, and in the inevitable post-party discussion, try to reduce it to terms of workable home-movie practice And as you grow more actively conscious of the how and why of continuity and visual story-telling, you'll find you've gained something which will make your own movies better in that longed-for day when, after Victory, we can get back to our normal activities once more! END

A Job for Your Projector

(Continued from Page 137)

say, in an awed tone—"My God! An American girl!"

When we put on our shows, how they ate up any little bit of entertainment we could give them—! They were so starved for it, our jokes didn't need to be funny—our singing could be pretty bad (it was, too!)—our dancing miles below the Fred Astaire class—but they loved it just the same. You only had

to open your mouth and they'd laugh and applaud as enthusiastically as though you were giving them the greatest show on earth And if you could work some "home town" color into your lines—you know, like "On our way from Hollywood we had to stop over in Scranton—" you'd bring the house down. There was sure to be a boy from Scranton, or Okmulgee, or Hattiesburg in the crowd, and you could bet he'd yell out, "Gee, that's my home town! How is the old burg, anyway?" and feel a lot better for days because he'd seen somebody who had just been through his home town.

I'll let you imagine how they'd go for really good humor dished out from a sound-track by Jack Oakie, or Laurel and Hardy, or Bob Hope or Red Skelton . . .!

As I've said, the films—up-to-date and in 16mm—are ready But they aren't much good without projectors And you know what it's like getting projectors—especially 16mm. sound projectors—these days The Army and Navy have been buying all they could get their hands on, for training purposes here and (under the Army's Special Service Division) for entertainment abroad. But they've nowhere near enough to take care of all those half-forgotten big and little posts that stretch from Iceland through Africa, Iran and India to the Solomons and Alaska

So the Editor of this magazine and I have asked General F. H Osborn, the head of the Army's Special Service Division, if America's amateurs and 16mm. professionals could have the privilege of giving or loaning their projectors for this overseas service. He told us that "The Special Service Division will gladly accept as gifts 16mm. sound projectors if they are not older than 1938 models Projectors donated will be shipped to troops overseas Shipping instructions may be secured through the Special Service Division of the Army Supply Force, Distribution Branch."

This means that if you've got a 16mm sound-on-film projector—any make—there's a job for it overseas that's just as vital to the welfare of our boys as packing a gun. I know there are a lot of amateurs who have sound projectors, and plenty of 16mm. professionals who have two or three machines, of which they could spare at least one I hope you'll see your way clear to sending these machines to the boys overseas, where they'll do such a very big job helping our own boys carry on with the happy, fighting spirit we know they've got.

Sure—I know 16mm sound projectors represent an investment of several hundred dollars; I've got one myself, and a good one But ask yourself just how much your projector will be worth to you if the morale of our boys at the front cracks, and the Nazis and Japs win . . .! How much is it worth to you beside the knowledge that someone you know—your son, your husband, the kid next door—has gotten down into that deadly rut of feeling nothing matters . . just because he's lost touch with the realities of being a normal, American boy . . . because he's had so little recreation he just turns into an almost mindless machine that plods on and works and fights, with no outlet for the humor and relaxing happiness of a free man—?

I know what the answer is as far as I'm concerned. My projector—it's brand-new, I got it just before I left for Africa—is going abroad I've packed it up and sent it on its way with only one string attached—that it *must not stay in this country* that it *must* go abroad, to the places where our boys are fighting to keep our country one in which we're free to own projectors if we wish, to shoot movies if we wish, and to live a life full of freedom and happiness I hope mine is only the first of hundreds to go where our boys need them so badly! END

Academy Awards

(Continued from Page 131)

tion combine so vividly Yet on analysis you'll notice that much of the color is actually subdued, toned down either in the actual set or costume, or toned down by Shamroy's careful use of effect-lightings, so that while you get an overall impression of strong color, you get it actually without being chromatically surfeited This reviewer particularly liked Shamroy's use of vigorous effect-lightings, even though some of them seemed skating a bit close to the danger-line of extreme low-key lighting This treatment, too, made possible the use of many very striking portrait-lightings in the closer shots of the principals Indeed, your strongest after-recollection of 'The Black Swan' is of some of the effect-lighted close-ups of Tyrone Power and Maureen O'Hara"

Cinematographer Shamroy says, "It is an honor I deeply appreciate to have been associated with two productions—black-and-white and color—in one year which gave me such opportunities that my fellow cinematographers twice felt my work worthy of nomination for our highest honors, and for selection as the year's best example of natural-color cinematography The way the choice fell between my two pictures is, I think, extremely significant of the part natural-color cinematography, whether by Technicolor or by any other process, is coming to play in our work In black-and-white cinematography, we have reached a saturation-point in artistic and technical achievement, most of us have done everything that can be done with light and lenses in black and-white We must constantly rack our brains to find something really original in monochrome camerawork . . and we usually fail.

"But color adds a new dimension to our scope, whether for realism, for pictorial effect, or for dramatic strength. The simple fact of color adds something not even the best of us can hope to achieve in black-and-white, and we have not even begun to scratch the surface of the possibilities of this new and infinitely more expressive medium; we won't for a very long time Today, most of our studios seem to consider color as chiefly an added attraction for musicals but my experience has convinced me it can be even more valuable to almost every other type of production—not only 'action' pictures, but the heavily dramatic stories we have always done in monochrome I am eagerly looking forward to the day when I may have a chance to explore the creatively photodramatic possibilities of color for a dramatic picture We've seen many great cinematographic achievements in monochrome in pictures of this type: but I am sure that once our greatest camera-artists have the opportunity to exercise their creative skill similarly in color, we will see them eclipse everything they—or the industry—have ever achieved before It's significant that most of our "production" cinematographers have, like me, started their first color productions more or less under protest—and that all of us, once we've found out what an expressive medium color is, hate to go back from color to monochrome again

"In closing, I want to extend my deepest appreciation to the men who composed my crew on 'The Black Swan'—to my Operative Cinematographer, Bud Mautino, to the two Technicolor Technicians, Capt Clifford Shirpser, now with the Army Air Force in India, and Paul Hill, to Assistant Cameraman Al Lebovitz, now Technical Sergeant Lebovitz of the U. S Marine Corps, and to my Gaffer, Clarence Punter. Their unfailing collaboration played a very great part, indeed, in making 'The Black Swan' a picture our fellow-professionals could

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single out for the honor they gave it.

The other nominations in the color division were "Arabian Nights," (Universal), photograph by Milton Krasner, A.S.C., with Capt William V. Skall and W. Howard Greene as his Technicolor associates, "Captains of the Clouds," (Warner Bros.), photographed by Sol Polito, A.S.C., with Capt. Wilfrid Cline, A.S.C., as Technicolor associate, Major Elmer G. Dyer, A.S.C., Charles A. Marshall, A.S.C., and Lt. Winton Hoch, A.S.C., in charge of aerial photography, and special-effects photography by Byron Haskin, A.S.C., and Rex Wimpy, A.S.C., "Jungle Book," (Korda-United Artists), for which the Academy slighted director of photography Lee Garmes, A.S.C., and named only his Technicolor associate, W. Howard Greene, A.S.C., "Reap the Wild Wind," (Paramount), photographed by Victor Milner, A.S.C., with Capt. William V. Skall, A.S.C., as Technicolor associate, with special-effects photography by Gordon Jennings, A.S.C., and Farciot Edouart, A.S.C., and underwater camera work by Lt. Dewey Wrigley, A.S.C.; and "To the Shores of Tripoli," (20th Century-Fox), photographed by Edward Cronjager, A.S.C., with Capt. William Skall as Technicolor associate. It is an unusual and highly fitting climax to Capt. Skall's many years of specialization in Technicolor camerawork that practically all of his final year's work before going on active service with the U. S. Army Air Force should comprise three out of the six color productions nominated for the industry's highest photographic honor.

When we reviewed "Reap the Wild Wind," a year ago, we said of the special-effects work of Gordon Jennings, A.S.C., and Farciot Edouart, A.S.C., "When next year's Academy Awards are passed out, we confidently expect to see Gordon Jennings, A.S.C., and Farciot Edouart, A.S.C., step forward to claim the one for special photographic effects. 'Reap the Wild Wind' would be bereft of both its wind and much of its wildness if you removed the innumerable scenes in which these two artists have brought sea and storm into the confines of a studio tank-stage. Their work, with the possible exception of one or two miniatures which could well have been retaken, is a convincing tribute to the skill of modern special-effects and transparency technicians." This year's richly deserved win makes it twice in a row for these redoubtable specialists in camera trickery another tradition-breaking "first," if our memory serves aright.

Four awards for scientific or technical achievement were made this year, all of them of Class II, which carries with it a plaque, though in at least one instance the achievement so recognized would seem so basic as to merit the Class I or statuette award. It is extremely unfortunate that the committees in charge of making these awards tend traditionally to be ultra-conservative—perhaps because final decisions often hinge on debates between cinematographers, sound engineers and laboratory technicians, neither of which may be expected to be fully conversant with what is and what is not genuinely important in the others' fields. The reports on these awards should certainly be more specific, as well, giving more detailed information on the device or process being honored, and wasting less space in glorifying the Academy's very questionable interest in technical and scientific advances.

Unquestionably the most far-reaching of the technical advances honored this year was in the development, by Daniel B. Clark, A.S.C., and his associates at the 20th Century-Fox Camera Department, of a radically new system of calibrating photographic lenses by photo-electrically-metered measurements of the amount of light actually transmitted. If applied on a national scale, it should prove a revolutionary advance, not alone in studio cinematography, but in all phases of both professional and amateur motion picture and still photography.

The plaque awarded to Carroll Clark, F. Thomas Thompson and the RKO Art and Miniature Departments for the design and construction of a moving cloud and horizon machine extends recognition to a development of particular importance in these days where large-scale marine and air scenes must of necessity be filmed on a studio stage, or not at all. The same is true of the award made to Robert Henderson and the Paramount Studio Engineering and Transparency Departments for the design and construction of adjustable light bridges and screen frames for transparency process photography. The award made to Daniel J. Bloomberg and the Republic Studio—Republic's first Academy recognition—for a device for marking action negative for pre-selection purposes is well-merited recognition of a device and method which results in a worthwhile saving of film and laboratory expenditure, and an improvement in the ultimate product.

Other awards in the technical field include that for 1942's best sound recording, given to Col. Nathan Levinson and the Warner Bros. Sound Department for their recording of "Yankee Doodle Dandy," the two statuettes for the best achievements in both black-and-white and color art-direction, very

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deservedly won by the 20th Century-Fox team of Richard Day and Joseph Wright, and the award for the best film-editing, given to Daniel Mandell for editing the Goldwyn-RKO production "Pride of the Yankees."

An international note was added in the bestowal of four Special Awards (certificates) for achievement in documentary film production to the makers of documentaries from the U. S. Navy, Australia, the U. S. S. R., and the Special Service Division of the U. S. Army. The pictures so honored were, respectively, "The Battle of Midway," photographed in 16mm Kodachrome by Commander John Ford, Lt. Gregg Toland, A.S.C., Photographer Sterling Barnett, and Photographer (2c1.) J. P. MacKenzie of the U. S. Navy, and released in 35mm Technicolor; "Kokoda Front Line," filmed by Damien Parer for the Australian News Information Bureau; "Moscow Strikes Back," photographed by ace cameraman I. Beliakov, Feodor Bunimovich, A. Krilov, B. Makesseyev, V. Soloviev, S. Schekutev, G. Burbov, P. Kasatkin, A. Lebedev, B. Nebilitsky, N. Schneiderov, S. Schei, A. Elbert and R. Carmen of the Central News Studios of Moscow, U. S. S. R., and "Prelude to War," compiled by the Special Service Division of the U. S. Army.

This year's Academy banquet was history-making in another sense, too. Climaxing fifteen years of increasingly ill-managed functions, it not only reduced the industry's major cultural event to the level of small time politics, but affronted the key men upon whom the industry's real success rests—the directors of photography, the recording engineers, the production designers and editors—by railroading their portion of the Awards program through with far less consideration of the men themselves, their achievements, or the fundamental significance of their contributions to production than that given the makers of short-subjects, the composers of popular songs, or the set-dressers. If the mismanagement of this year's affair brought rumbles of protest from even the biggest figures of the industry, it fanned to a blaze the resentment of the technical community at being given so rude a brush off. Unless this breach is healed by sincere and positive action—not words—there is little doubt but that regardless of whether or not this year's Academy Awards banquet will be the last one, as is freely rumored, it will be the last in so far as Hollywood's technical community is concerned, and the cinematographers and other technical people of the industry will hereafter bestow their own awards in their own way. END

"Horse Operas"

(Continued from Page 137)

actually climbing, simply slid down, while the camera photographed the scene upside down. In editing, the scene was turned end for end. As the result the action was reversed and our hero climbed up the rope in typical "Fairbanks" fashion. It's an old trick—but it works!

An interior sequence was to be a stage-line office where the "Rider" had to escape by diving through a window. Made to-order was the living-room and bedroom of Director McMahon. Between these two rooms was a window. The camera shot from the bedroom through the window (framed in the foreground) into the living room, which was to be the stage office. After being discovered rifling the office, the "Rider" ran from the far end of the room and dove head first through the window—onto the bed in the bedroom! The bed of course was just out of scene.

Leaping boldly onto a riding-academy horse is practically impossible, not because the rider wasn't capable, but that the horse (although nags would be more appropriate) wouldn't stand for it. As the masked and caped figure charged toward him to mount, the horse decided to move—fast. It soon became apparent the dashing outlaw wouldn't be able to mount in the necessary western manner. And as riding academy horses cost one dollar an hour, some way out of the problem had to be thought of, *pronto*, in order to save Adventure Pictures from bankruptcy. It became necessary to throw a saddle over a wooden saw-horse, framing just the cantle, seat, and horn in the foreground. Now the bandit could jump into the saddle in a manner as spectacular as desired by the director. Immediately upon entering the saddle, the film-editor cut to a long-shot of the "Rider" actually on a horse and just spurring forward. It's all in the editing!

The boys view as many "hoss operas" as they can afford and consider "The

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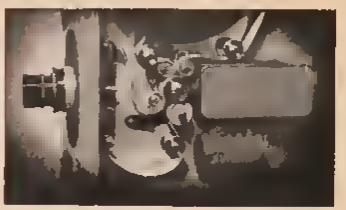

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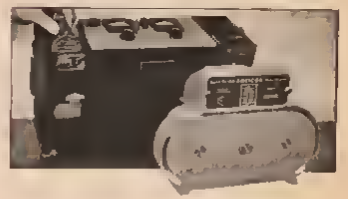

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Westerner" with Gary Cooper the best Hollywood has yet produced. The group is still trying to duplicate Gregg Toland's excellent "dolly-shots" and especially the fine directing. They think Gary Cooper is excellent as a westerner. They even tolerated the heroine—"because she could act and her presence in the film was logical." The boys are also George O'Brien fans and have seen almost every film he's been in, including the silents revived at the Museum of Modern Arts.

A "boss opera" without trick riding wouldn't be right. For "Pals of the Plains," a short action western, a group of young boys ranging in age from fourteen to sixteen change from one galloping horse to another, fall off, and tear their steeds. The backyard, where their horses are kept in barns, has recently been remodeled into a western town. "Sheriff's Office," "Hotel," and "Livery Stable" signs, wooden awnings, hitchrails and wooden sidewalks have been added to give a frontier effect.

"Jungle Jim," the well-known newspaper "comic" strip is one of the group's favorite adventure tales. Studying the comic strips one day they noticed that Alex Raymond's drawings of Africa resembled the woods around a small brook nearby. Director McMahon promptly wrote a screen-play, casting himself as Jungle Jim.

The screen-play was written in best Hollywood tradition, for, when he had finished, little of the original story remained! This can be understood because there were many properties and sets that could not be reproduced by Adventure Pictures meager budget. To create more thrills and suspense, shots of lions from a film library were intercut with their own scenes. It is surprising how these stock-shots can be trimmed and inserted to fit the action so well.

Another feature of this group that Hollywood might study to advantage is a cooperative spirit and financial control which makes for complete elimination of arguments about casting, directing or any of the hundreds of jealousies and "studio politics" which tear asunder friendships in the West Coast Cinema Capitol. Early in the organization of Adventure Pictures it was decided that whoever finances a picture can play the hero.

Otherwise, many of the things that beset the industry in Hollywood are encountered by the New Jersey boys. For instance, "The Black Rider" went through a transformation not unlike a story-conference in Hollywood where a South Seas romance may emerge as a northern thriller after a dozen continuity writers thrash out the original script.

The "Rider" was written and financed by the "hero" of the previous picture who wanted to be the "villain" in the new one. But it was decided he was not the "dastardly menace" type so he suggested wearing a mask until his face could be revealed in one carefully made closeup. As the plot developed, it became a "guess who" mystery and it was then decided that the outlaw should wear a long, black cape as well as the mask. But since he was rather a stout fellow, the cape did not fully conceal his identity and it was decided to change the villain into the comedian and choose a slimmer fellow for the dashing young outlaw.

Music plays an important part in the exhibiting end of the movie business and it is only natural that Adventure Pictures should have its own musical director. It is his job to select the music that is to accompany the picture. For synchronized sound-effects, a home-made dual-turntable and amplifier is used. And the music is chosen with a sensitiveness to ear-appeal that might well be emulated by Hollywood. The group, as well as the musical director, are all listeners to symphonic music and have found that many of Tschaikowsky's orchestral works provide the aural excitement which must match the thrills on the screen. In scoring "The Black Rider," a heavy thematic-type music was desired. It was finally agreed that Franz Liszt's "Faust Symphony" was the most appropriate that could be found on records. This symphony, with its different variations, is carried through the entire film wherever the "Rider" appears.

The National Broadcasting Company featured the boys' experiences over their popular hobby program, "The Bright Idea" Club. Columbia Broadcasting System's television studios, after reviewing dozens of amateur motion pictures, transmitted "The Black Rider." This was an honor for the boys as their's was understood to be the first amateur film to be televised. On this same program the group was interviewed by Gilbert Seldes. Mr. Seldes, often referred to as Hollywood's "best pal," thrilled the boys when he told them "'The Black Rider' is the best western since 'The Great Train Robbery' of 1903."

Their films are now being featured on programs at such places as the Y.M.C.A., the Boys' Club, and Chambers of Commerce where they bring roaring cheers for the hero and hisses for the villain. END

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Editor's Finder

(Continued from Page 133)

them when it needed them, and forget them in between.

But those days are going fast. At a

conservative estimate, more than one-third of the industry's trained photographic talent has been removed from the studios by draft and enlistment. More are following them. Others are making their way into the photographic departments of the aircraft industry and other defense plants. Good assistants and operatives are growing as scarce as hen's teeth—and a good deal more valuable. A few foresighted studios are even placing these men under contract, so they'll be available when needed.

But they're forgetting the "fill-in" directors of photography (and their crews) who have always been so handy when production inched momentarily above the bare minimum which their usual contract camera staffs could handle.

And unless all the signs are wholly wrong, before the year is out the once abundant supply of these "fill-in" men is going to be gone—and with them many more of the contract "regulars." They'll be in uniform, making movies for Uncle Sam—and the studios will be begging for cameramen—*any* cameraman—to help them keep up the production which the Washington powers-that-be consider so essential to morale and international propaganda. Unfortunately, there won't be anyone to answer those pleas. And we wonder what reply those camera executives who are now so proud of running an economical department will give their bosses when the bosses ask them why they didn't see what was coming and put a few extra cameraman under contract while they could get them!

Consistency

(Continued from Page 129)

brought forth a considerable variety of objections which can be summed up by the statement that "it can't be done." So we were forced to devise our own equipment and methods for doing it.

The actual calibrating set-up is simple enough. The lens to be calibrated, in its standard mount, is screwed to one end of a light tight-tube, at the opposite end of which is mounted the photoelectric cell, and of course with the lens' image accurately focused on the photocell. In front of the lens is a suitable light-source, mounted behind a ground glass diffusing panel, and wired through an accurate voltage control and meter. The photocell is in turn wired to an ultrasensitive microammeter.

To calibrate a lens, the light source is brought to a known intensity by means of its voltage control, and checked through a carefully preserved master lens. Then the lens to be calibrated is substituted for the master lens, and the diaphragm manipulated to produce on the photocell-controlled meter a reading corresponding to that produced by a setting of *f*-3.2 on the master lens. This point is calibrated as *f* 3.2. Thereafter we work both up and down in steps corresponding to the mathematically correct transmission-values of the usual stops above and below this median value. The stops are of course determined by their actually measured transmission.

By this method, every lens can be calibrated to *f*-stop values which, stop for stop, are absolutely identical in transmission, and hence in exposure-producing values, regardless of the design or construction of the lens. In the same way, coated and un-coated lenses may be calibrated so that both will give identical transmission values at the same stops rather than leaving the coated objective a half-stop or even a full stop faster at a given aperture than the uncoated one.

Using a master lens in adjusting the calibrating bench is an important safeguard. The entire system is based on accurate measurement of the actual transmission of the lens being calibrated. The incandescent lamp used as a light-source in these measurements can and does deteriorate, and its globe blacken, to a point where merely applying a known voltage to it is no guarantee that it is emitting the intended intensity of light. Introducing a master lens of known transmission into the system, and then bringing the light-source voltage to the point which gives a predetermined reading through the photocell-meter system eliminates this variable, and assures that all lenses will be calibrated to a known and accurate standard.

Commencing our calibrating procedure at a median point, as represented by *f* 3.2, is an absolute essential to accuracy in this system of calibration. In our earliest tests, we discovered that the mere fact that a lens is rated at *f* 2.3 or *f* 2.5 according to the conventional system does not by any means indicate that its light-transmitting power is actually so high. Distressingly often we found that lenses conventionally rated by their makers at *f* 2.5 and better really transmitted no more light than an actual *f*-3.2 value. Starting the calibrating procedure this way, in the middle range, enables us to give each lens a truly accurate maximum-aperture calibration, and also to keep all calibrations from maximum to minimum in their correct and genuinely accurate relationship. When other organizations, experimenting with this system of calibration, have attempted to reverse this procedure and work downward from maximum aperture, the results have almost invariably proven inaccurate, and the ratios between stops misleading.

A number of authorities have been kind enough to state that in their estimation this system of lens-calibration is one of the extremely few basic advances in photography in many years, and to suggest that it should be adopted as at least a national standard, and

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I am informed that steps to this end are already being taken. Quite apart from my own participation in this development, I sincerely hope that this may be the case, for my own experience as a practicing cinematographer, as well as head of a major studio's camera department, has furnished abundant proof of the importance of anything which will give the man at the camera absolute reliance on the consistent accuracy of the stop calibrations of all of his lenses. Looking forward to post-war photography, such a standard would seem even more valuable as lenses of newly-developed optical glasses with radically increased light-transmitting power, and with improved types of coating, etc., come into use for both professional and amateur still and motion picture photography. Consistently correct exposure is the foundation of success in any type of photography, and this cannot be fully achieved unless the lens calibrations by which exposure is controlled give a true and accurate representation of the amount of light actually reaching the film to make the exposure.

Experience has proven the advantages of this system of calibration. Our cinematographers have been turning out more consistently uniform results under all conditions, in the studio and on location, than ever before, and maintaining this consistency regardless of the lenses used, to a degree I can safely say is unparalleled in photographic history. Application for a U. S. Patent upon the equipment and methods used in this system of calibration has been made and is proceeding favorably, while at least one of Hollywood's major studios and several of the motion picture units of the U. S. Armed Services have arranged to employ the method in calibrating their lenses.

But as I pointed out at the beginning, this system of lens-calibration is only one, though unquestionably the most important, of three closely inter-related steps toward assuring consistently uniform phototechnical quality. It could not develop its full value alone, without the combination of a consistently accurate system of metering illumination on the set, or the consistently accurate time-and-temperature processing the resultant negative receives in the laboratory. Neither could they develop their full worth without the consistency in exposure made possible by this system of uniformly accurate lens calibration. Working together, these three developments have enabled 20th Century-Fox cinematographers to maintain an enviable record of phototechnical consistency, whether measured by the records of negative densities or printing values of any one picture or of the studio's overall production.

None of these aids of phototechnical consistency can, of course, take the place of individual artistic skill on the part of the cinematographers involved. But with them, the minds of the cinematographers are left that much more free of routine, mechanical problems, and more able to concentrate on the creatively artistic aspects of their work. That the cinematographers in my department have utilized these aids to that end is, I think, thoroughly attested by the record they have made in this year's Academy Awards, when for the first time in history four of the ten films nominated for the Award for the year's best black-and-white cinematography came from one studio! END

Contrast Control

(Continued from Page 127)

suitable to study the sources of illumination which may be arranged at any point in a 360° circle around the subject.

The 360° circle should be considered as being divided into six sectors, as shown in Fig. 6. The meter with hood is then held at the position of the subject. Readings are then taken in sectors A, B, C, D, E, and F, in turn, by means of rotating the meter-head. A record is made of the readings.

This record may then be used at a later date as a prime aid in setting up a similar lighting arrangement.

To get back to the main purpose of the device, however, which is illumination contrast measurement and control, it is interesting to consider how useful it would be in connection with natural-color photography.

The limitations, with respect to contrast, of natural-color photography are quite well known. If the illumination contrast range is too great, the result is quite likely to be either blocked-up shadows, or washed-out highlights, or both. The Norwood meter with contrast hood will enable the photographer to keep safely within the natural latitude of the film.

In addition, it will also allow the maintenance, to a fine degree, of any pre-selected contrast ratio throughout the picture. This is quite desirable because changes in illumination-contrast are very noticeable in natural-color work, and are quite disturbing.

The contrast hood has been so designed that it may be attached to the Norwood meter very easily and quickly. It may be removed just as easily and quickly. Thus the value of the meter as an exposure-meter, with hood removed, remains unimpaired. With the hood added it turns into an illumination-contrast meter. This, in effect, places two valuable meters at the disposal of the cinematographer: An exposure-meter that will keep exposures dependably uniform, and in addition an illumination-contrast meter that will allow the pre-selection and then the maintenance of any chosen contrast ratio.

When a layman sees a picture in a theatre he usually does not consciously recognize the existance or lack of the smoothness provided by uniformly-exposed negatives and uniformly-balanced illumination of all scenes. However, if these things are lacking he is sure to have a feeling that something about the picture was not as good as it should be.

The experienced cinematographer is the one who appreciates the value of quality in these matters, and will best visualize and understand how the above-described meters will assist him to secure such desirable quality. END

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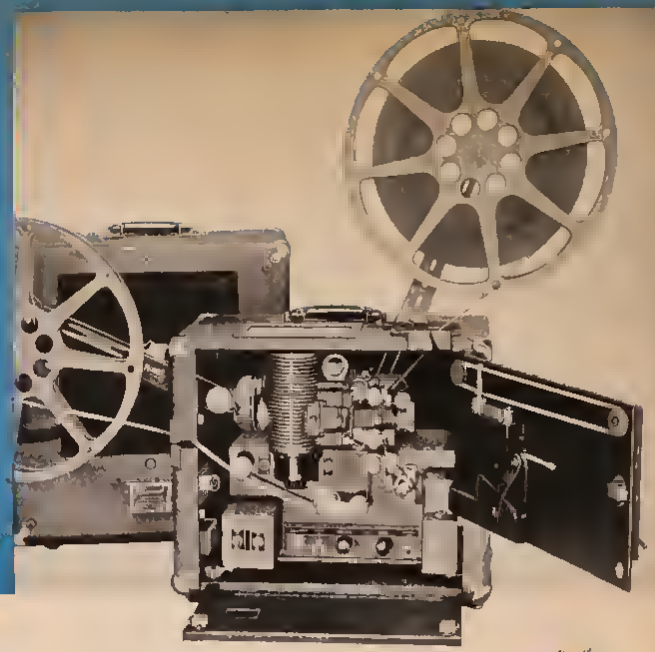

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